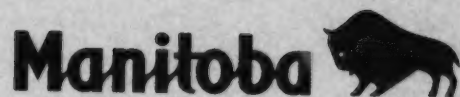


Manitoba
Science, Technology, Energy and Mines

Sciences, Technologie, Énergie et Mines
Manitoba

Annual Report
2008-2009

Rapport annuel
2008-2009





**MINISTER OF
SCIENCE, TECHNOLOGY, ENERGY AND MINES**

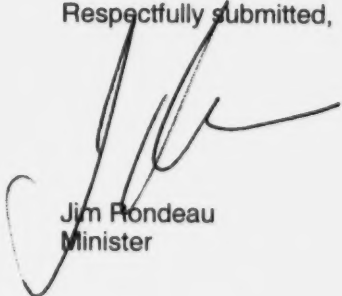
Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

His Honour the Honourable Philip S. Lee, C.M., O.M.
Lieutenant Governor of Manitoba
Room 235, Legislative Building
Winnipeg, Manitoba
R3C 0V8

May it Please Your Honour:

I am pleased to present the Annual Report for the Department of Science, Technology, Energy and Mines for the fiscal year ending March 31, 2009.

Respectfully submitted,


Jim Rondeau
Minister







**MINISTER OF
SCIENCE, TECHNOLOGY, ENERGY AND MINES**

Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

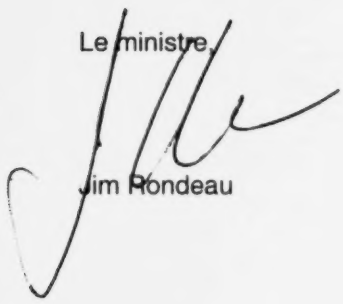
Son Honneur l'honorable Philip S. Lee, C.M., O.M.
Lieutenant-gouverneur du Manitoba
Palais législatif, bureau 235
Winnipeg (Manitoba) R3C 0V8

Monsieur le Lieutenant gouverneur,

J'ai le plaisir de présenter à Votre Honneur le rapport annuel du ministère des Sciences, de la Technologie, d l'Énergie et des Mines pour l'exercice se terminant le 31 mars 2009.

Je vous prie d'agréer, Monsieur le Lieutenant-gouverneur, l'expression de mon profond respect.

Le ministre,


Jim Rondeau





Science, Technology, Energy and Mines

Deputy Minister

Room 349, Legislative Building, Winnipeg, MB, R3C 0V8

T 204-945-2771 F 204-945-2747

www.gov.mb.ca

September 9, 2009

Honourable Jim Rondeau
Minister of Science, Technology, Energy and Mines
Room 333, Legislative Building
Winnipeg MB R3C 0V8

Dear Minister Rondeau:

I have the honour of presenting the Annual Report for the Department of Science, Technology, Energy and Mines for the period April 1, 2008 to March 31, 2009.

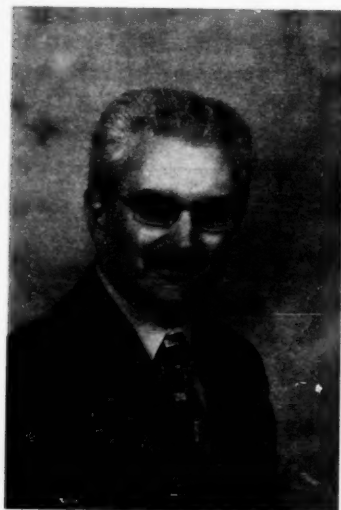
The mission of the department is to help all Manitobans thrive by fostering innovation, enabling critical partnerships and networks, and continuously transforming service delivery.

The department has undertaken many activities in collaboration with our partners and stakeholders. I have profiled below, a few accomplishments that are a result of the activities:

- Firmly established Manitoba as the leader in geothermal technology in Canada with the introduction of new incentives and a tax credit program.
- A new energy, water and solid waste efficiency program was launched with Manitoba Hydro. The program targets small commercial locations that would benefit from financial savings and reduce their carbon footprint.
- Successfully operationalized the Beyond Kyoto Climate Change Plan. Items are being rolled out across government and throughout Manitoba.
- Participated in the development of regional cap and trade programs as well as national and international discussions on climate change activities.
- MindSet, the Manitoba Network for Science and Technology, was recognized for its innovation in 2008 by winning the Global Best Award of the International Partnership Network for its programs in developing skills for the future workforce.
- The Food and Agriculture for Diabetes Elimination (FADE) initiative is an applied tri-national (Kansas City, Missouri, Monterey, Mexico and Winnipeg, Manitoba) research project that is exploring the development of food products that can help eliminate Type 2 Diabetes. Funding for clinical trials across the three jurisdictions has been secured with trials to commence in the fall of 2009.
- ICT Services Manitoba has completed pilot testing of Web and Video conferencing services which have proven to be effective productivity and communication tools for Departments. Among the benefits realized by these services is the overall reduction of travel time in support of green business options, more inclusion for government staff working in northern and rural Manitoba and enhanced services to Manitobans by improved and more timely communication

- A Career Development web portal has been designed to aid Manitobans in obtaining the knowledge, abilities and confidence to set and achieve career goals while complementing work being done by government staff.
 - URL to the English site is www.manitoba.ca/careerdevelopment
 - French site: www.manitoba.ca/developpementdecariere
- In 2008, the petroleum industry spent a record \$509 million exploring for, developing and producing oil in Manitoba. Oil production also reached a record 1,370,585 cubic metres (8.5 million barrels) in 2008 with a total value of \$838 million.
- New information produced during the Flin Flon Targeted Geoscience Initiative resulted in follow up exploration by the private sector, most notably in the Flin Flon area and west of Thompson. The initiative has been successful in bringing government, university and industry workers together to develop greater understanding of the geology and mineral deposits in west central Manitoba.
- The Manitoba Mineral Exploration Tax Credit was increased from 10% to 20% for the 2009/2010 fiscal year and will be further increased to 30% in the 2010-2011 fiscal years. Together with the 15% federal exploration tax credit, Manitoba investors earn significant tax savings with this program.

The department will continue with implementing innovative initiatives and strategic planning that will contribute to Manitoba's success.



Respectfully submitted,

John Clarkson
Deputy Minister



Sciences, Technologie, Énergie et Mines

Sous-ministre

Palais législatif, bureau 349, Winnipeg (Manitoba) R3C 0V8

T 204-945-2771 F 204-945-2747

www.gov.mb.ca

Le 9 septembre 2009

Monsieur Jim Rondeau

Ministre des Sciences, de la Technologie, de l'Énergie et des Mines,

Palais législatif, bureau 333

Winnipeg (Manitoba) R3C 0V8

Monsieur le ministre,

J'ai l'honneur de vous présenter le rapport annuel du ministère des Sciences, de la Technologie, de l'Énergie et des Mines pour la période du 1^{er} avril 2008 au 31 mars 2009.

La mission du ministère est d'aider la population manitobaine à prospérer en encourageant l'innovation, en permettant la mise en place de partenariats et de réseaux essentiels et en transformant continuellement la prestation de services.

Le ministère a entrepris plusieurs activités en collaboration avec ses partenaires et les groupes intéressés. J'ai décrit ci-dessous quelques réalisations qui résultent de ces activités.

- Le Manitoba s'est fermement établi comme chef de file dans le secteur de la technologie géothermique grâce à l'introduction de nouvelles mesures incitatives et d'un programme de crédit d'impôt.
- Un nouveau programme d'efficacité énergétique et de d'amélioration des systèmes de traitement des eaux et des déchets solides a été lancé en collaboration avec Hydro-Manitoba. Ce programme est destiné aux sites commerciaux de petite taille qui pourraient bénéficier d'épargnes financières tout en réduisant leur empreinte carbone.
- Le ministère a achevé la mise en route du plan d'action sur les changements climatiques *Au-delà de Kyoto*. Les actions qui composent le plan sont en cours de mise en œuvre dans l'ensemble du gouvernement et de la province.
- Le ministère a participé au développement de programmes régionaux de plafonnement et d'échange, ainsi qu'à des discussions aux niveaux national et international sur les activités de lutte contre le changement climatique.
- MindSet (le Réseau manitobain favorisant la science et la technologie) a été reconnu pour son caractère novateur en 2008 : ses programmes de développement des compétences pour la main-d'œuvre à venir a en effet remporté le prix mondial d'excellence dans la catégorie des réseaux de partenariat international.
- L'initiative FADE (*Food and Agriculture for Diabetes Elimination*, ou Alimentation et agriculture pour l'élimination du diabète) est un projet de recherche tripartite visant le développement de produits alimentaires qui permettraient d'éliminer le diabète de type 2. Les villes de Kansas City (Missouri), Monterey (Mexique) et Winnipeg (Manitoba) participent à ce projet. Des fonds ont été alloués pour des essais cliniques dans les trois pays à partir de l'automne 2009.

- La Division des technologies de l'information et des communications du Manitoba a terminé un projet d'essai pilote de services de téléconférence et de cyberconférence, qui se sont avérés des outils efficaces de productivité et de communication. Parmi les bénéfices de ces services, citons la réduction globale du temps de déplacement dans le cadre d'options écologiques pour les entreprises, une plus grande inclusion du personnel gouvernemental des régions rurales et du Nord, et l'amélioration des services offerts à la population manitobaine grâce à une communication de meilleure qualité et plus à propos.
- Le ministère a conçu un portail Web de développement de carrière pour aider les Manitobains et Manitobaines à acquérir les connaissances, les aptitudes et la confiance nécessaires pour se fixer des objectifs de carrière et les atteindre, en complément du travail effectué par le personnel gouvernemental.
 - L'adresse URL du site est www.manitoba.ca/developpementdecARRIERE.
 - Celle du site anglais est : www.manitoba.ca/careerdevelopment.
- En 2008, l'industrie pétrolière a dépensé la somme record de 509 millions de dollars pour l'exploration et la production pétrolières, ainsi que pour le développement de ressources pétrolières. La production a atteint le niveau record de 1 370 585 mètres cubes (8,5 millions de barils) en 2008, ce qui représente une valeur totale de 838 millions de dollars.
- Les données produites par l'Initiative géoscientifique ciblée de Flin Flon a donné lieu à des projets d'exploration par le secteur privé, plus particulièrement dans la région de Flin Flon et à l'ouest de Thompson. Cette initiative a permis une collaboration réussie entre travailleurs des secteurs gouvernemental, universitaire et industriel dans le but de mieux comprendre la géologie de la partie ouest de la région centrale du Manitoba et des dépôts minéraux qui s'y trouvent.
- Le crédit d'impôt relatif à l'exploration minière du Manitoba est passé de 10 % à 20 % pour l'exercice 2009-2010, et sera augmenté à 30 % en 2010-2011. Combiné au crédit d'impôt fédéral de 15 % en matière d'exploration minière, ce programme permet aux investisseurs manitobains d'effectuer d'importantes économies d'impôt.

Le ministère continuera de promouvoir la planification stratégique et les initiatives innovatrices qui contribueront au succès du Manitoba.

Je vous prie d'agréer, Monsieur le Ministre, mes salutations distinguées.



Le sous-ministre,

John Clarkson
John Clarkson

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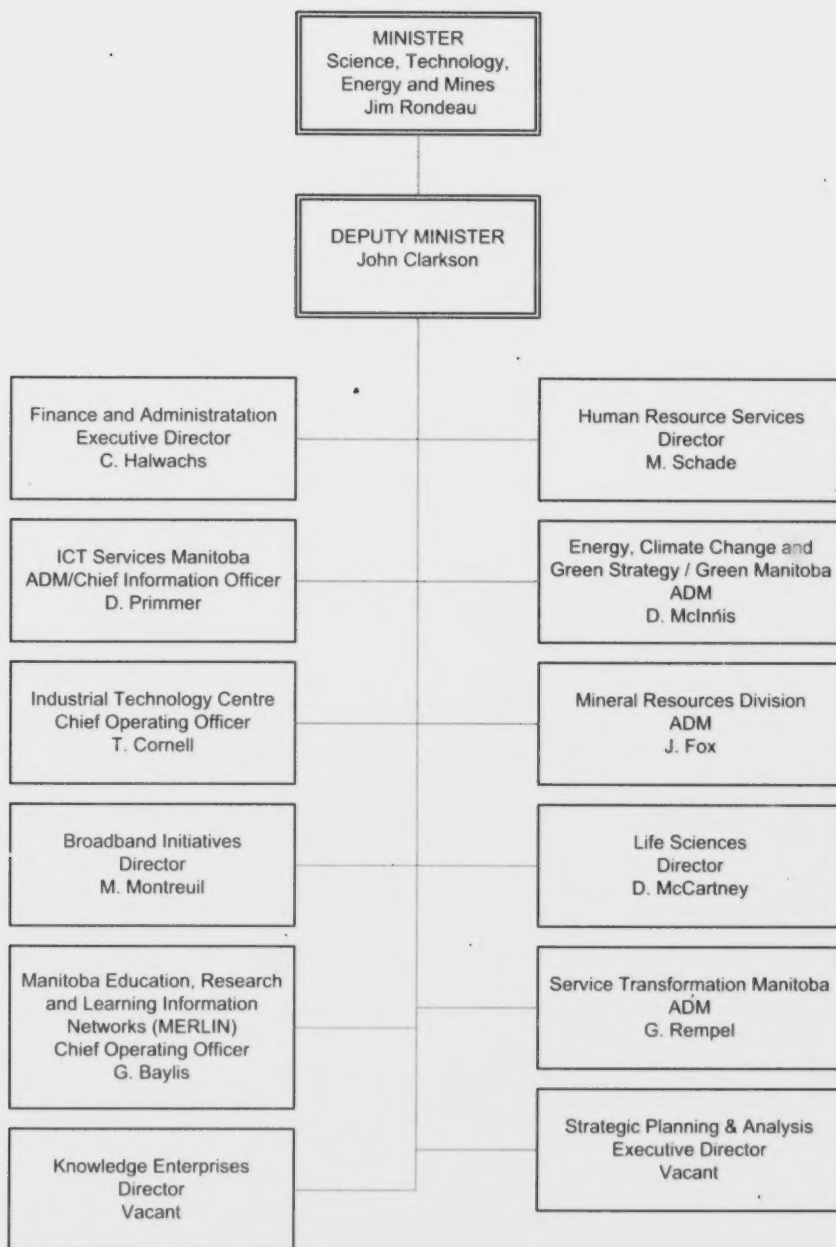
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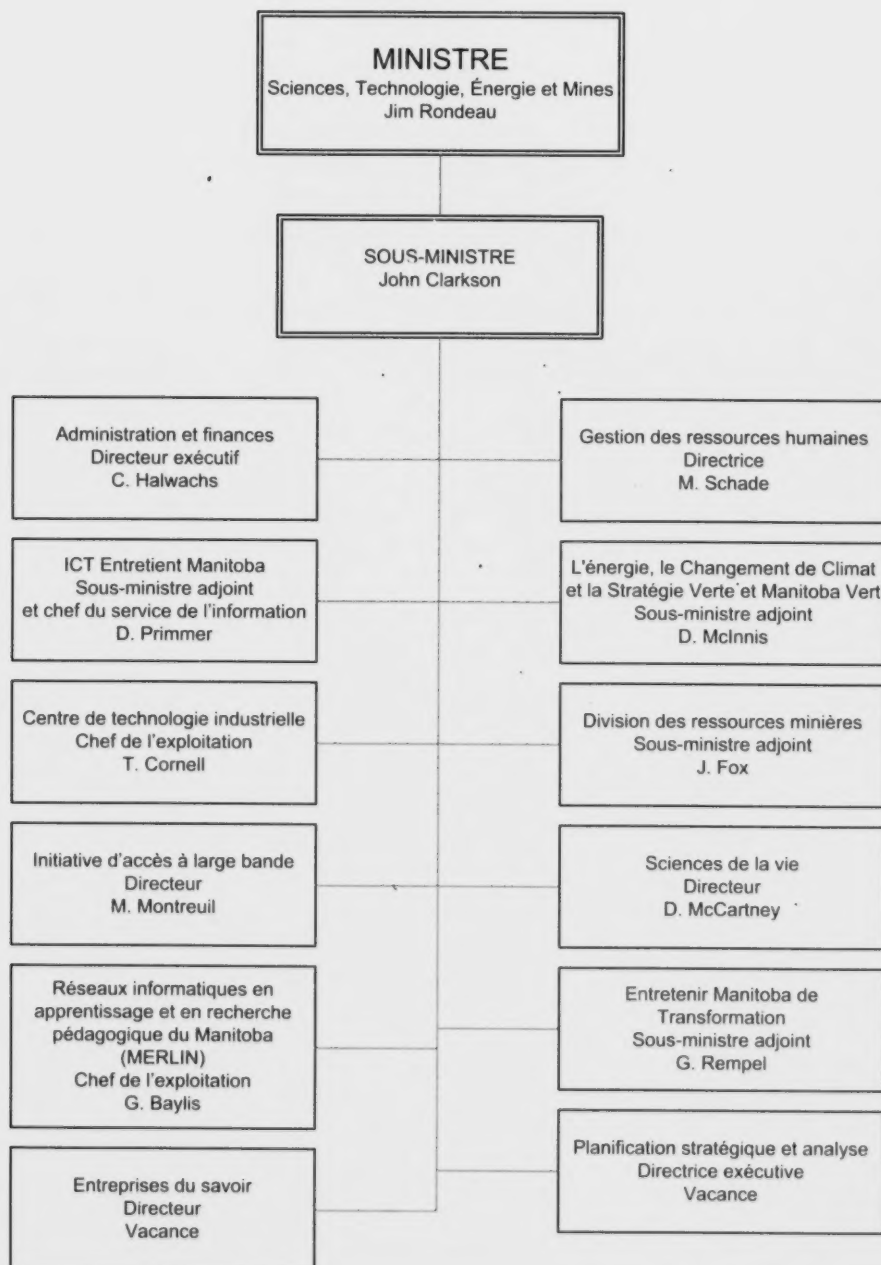
**SCIENCE, TECHNOLOGY, ENERGY AND MINES
ORGANIZATION CHART
As of March 31, 2009**



SCIENCES, TECHNOLOGIE, ÉNERGIE ET MINES

ORGANIGRAMME

AU 31 MARS 2009



PREFACE

REPORT STRUCTURE

The Annual Report is organized in accordance with the department's appropriation structure and the Main Estimates of Expenditure for the Province. The Report includes financial performance and variance information at the main and sub-appropriation levels and information relating to the department's objectives and results at the sub-appropriation level. The Report also includes information about associated agencies, business assistance, revenue and expenditures, a five-year comparison of expenditures and a staffing analysis.

STATUTORY RESPONSIBILITIES

The Minister of Science, Technology, Energy and Mines is responsible for the following:

<i>The Biofuels Act</i>	B 40
<i>The Development Corporation Act</i>	D 60*
<i>The Economic Innovation and Technology Council Act</i>	E 7
<i>The Energy Act</i>	E 112
<i>The Gas Pipe Line Act</i>	G 50
<i>The Gas Allocation Act</i>	G 52
<i>The Greater Winnipeg Gas Distribution Act (S.M. 1988-89, c. 40)</i>	-
<i>The Manitoba Health Research Council Act</i>	H 28
<i>The Mines and Minerals Act</i>	M 162
<i>The Mining and Metallurgy Compensation Act</i>	M 190
<i>The Oil and Gas Act</i>	O 34
<i>The Oil and Gas Production Tax Act</i>	O 37
<i>The Property Tax and Insulation Assistance Act [Part V, and section 1 and Part VI as they relate to subjects covered under Part V</i>	P 143
<i>The Surface Rights Act</i>	S 235
<i>The Sustainable Development Act</i>	S 270
(as it relates to the Manitoba Climate Change Action Fund of the Sustainable Development Innovations Fund)	
<i>The Winter Heating Cost Control Act</i>	W 165

As per Schedule "P", Order-In-Council 418/2006

*As per Schedule "R", Order-In-Council 44/2008

SUSTAINABLE DEVELOPMENT

The department is committed to the Principles and Guidelines set out in The Sustainable Development Act and works to incorporate them in department activities, programs and business practices.

The Principles and Guidelines of Sustainable Development are:

1. Integration of Environmental and Economic Decisions
2. Stewardship
3. Shared Responsibility and Understanding
4. Prevention
5. Conservation and Enhancement
6. Rehabilitation and Reclamation
7. Global Responsibility
8. Efficient uses of Resources
9. Public Participation
10. Access to Information
11. Integrated Decision Making and Planning
12. Waste Minimization and Substitution
13. Research and Innovation.

The Sustainable Development Procurement Goals:

1. Education, Training and Awareness
2. Pollution Prevention and Human Health Protection
3. Reduction of Fossil Fuel Emissions
4. Resource Conservation
5. Community Economic Development

ORGANIZATION

The department's 2008/2009 organization structure is illustrated in the Organization Chart, page i. The roles, responsibilities and staffing are outlined in the following information.

ROLE AND RESPONSIBILITIES

MINISTER

HONOURABLE JIM RONDEAU

DEPUTY MINISTER

JOHN CLARKSON

ROLE AND MISSION

The department will build the capacity for Manitobans to prosper through innovation, by

- creating strategic partnerships;
- encouraging investment;
- enabling the right infrastructure, and access to it;
- promoting awareness and knowledge; and
- championing critical policy development.

FOCUS

The Department was established in recognition of the following:

- **Innovation** is key to future economic development and **capacity to deliver** government initiatives;
- **Energy, mining, petroleum, science and technology** are critical to the further development of the Manitoba economy;
- Government's need to **focus** knowledge based economic development priorities; and
- **Strengthen** the approach to economic development.

The Department will:

- focus provincial innovation activities;
- assist in the growth and success of our science, research and technology assets;
- strengthen, develop, grow and attract knowledge-based industries;
- focus government information technology requirements;
- build community based partnerships through connectivity;
- focus government climate change implementation plans;
- strategically develop Manitoba's energy and mineral resources, in co-operation with public and private sectors;
- support innovation in communities and schools;
- link response to climate change with innovation and economic success; and
- link government's own IT activities with innovation and economic development.

The Department will work collaboratively with business, individuals, government departments and communities to:

- strengthen their capacity to succeed;
- enhance the competencies they need to prosper;
- raise their profile locally, nationally and internationally; and
- foster an environment that supports sustainable economic growth.

Some of the immediate and short-term priorities for the Department are:

- create an environment conducive to the development of renewable energy technologies;
- lead coordinated development and action on the provincial implementation of Manitoba's Climate Change Plan;
- optimize community participation and benefits from upcoming Manitoba Hydro development projects;
- optimize value for sale of hydro power to other jurisdictions;
- maximize spin-off opportunities related to new renewable energy;
- facilitate early development of critical infrastructure centres in which the province has invested;
- create an environment which ensures Manitoba's life sciences cluster in the health, agri-food and environmental sectors remains globally competitive;
- facilitate development and growth of industry associations, particularly in the information communication and technology (ICT) and life sciences sectors;
- create an environment conducive to investment in Manitoba's technology businesses;
- help Manitobans maximize opportunities from connectivity by: expanding the number of communities with access to networks, increasing bandwidth, increasing the number of computers available to communities and enhancing the development of local content;
- seek improved Federal-Provincial research partnering support;
- continue to facilitate increased capacity at Manitoba research institutions;
- leverage and co-ordinate the government's investment in ICT to ensure best value from investment and maximum economic and community development opportunities;
- continue to develop strategies to safeguard information;
- provide ICT planning, development and operational activities that support the major strategic directions of government as identified through departmental plans;
- strive to collaborate and share assets and approaches between departments and jurisdictions, in order to reduce duplication, improve service levels, obtain best value from assets and ultimately reduce expenditures; and
- seek strategies to improve the ease and quality of Manitobans' access to government information, programs and services.
- increase the investment level for mineral and petroleum resources in Manitoba;
- continue to develop the geoscientific knowledge base of the Province and the effectiveness of exploration activities in both established mining areas and in frontier areas;
- identify the location, ownership, inspection history, and status of all existing orphaned and abandoned mine sites in Manitoba

To achieve its mission, the department is organized in four divisions:

ADMINISTRATION AND FINANCE DIVISION provides for the executive management, planning and control of departmental policies and programs; administrative support is provided through the Department of Competitiveness, Training and Trade in the areas of human resource services, finance and administration and management information systems.

ENERGY, CLIMATE CHANGE AND GREEN STRATEGY INITIATIVES develops and implements energy development initiatives, climate change initiatives and economic development strategies involving hydro-electric resources and alternate energy development opportunities; includes developing, monitoring and coordinating the implementation of energy and climate change policies and initiatives and related provincial programs.

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT functions as the government's primary focus for business development services to industry and communities in the areas of life sciences, knowledge enterprises, technology and infrastructure to support economic growth and stimulate employment; develops strategic plans, business plans and provides research, analysis and evaluation services; develops, analyzes and communicates policies related to innovation, research, and development, technology and telecommunications; oversees the implementation of the Manitoba Centres of Excellence Fund and the Manitoba Research and Innovation Fund; provides a coordinating function for all research, innovation, science and technology initiatives in government; facilitates economic development in Manitoba through the provision of industrial technology services; provides funding for health research initiatives and; provides distance education technology services for the provincial education systems.

MANITOBA INFORMATION AND COMMUNICATION TECHNOLOGIES is responsible for positioning information & communications technologies to support program delivery within the Government of Manitoba and broader public sector; develops key information and communication technology (ICT) strategies, policies, standards and business processes to optimize the delivery of core ICT functions in support of service delivery goals; provides an information and communication technology environment within government where appropriate technologies are fully integrated with service delivery requirements; provides analytical framework for review and approval of all ICT plans, projects and expenditures; and develops a service relationship with stakeholders to ensure that service strategies are aligned with government's program and service priorities.

THE MINERAL RESOURCES DIVISION promotes wise land management and environmentally sustainable economic development in the province based on Manitoba's mineral and petroleum resources; provides authoritative documentation of the province's mineral and petroleum endowment and development potential; delivers mineral incentive programs; administration of legislation governing the disposition of mineral and petroleum rights, exploration, development and production of Manitoba's mineral and petroleum resources and, the rehabilitation of mines, quarries and abandoned petroleum sites; provides for the resolution of disputes between surface and/or mineral rights holders with respect to accessing minerals including oil and gas.

AVANT-PROPOS

STRUCTURE DU RAPPORT

La présentation du rapport annuel reflète la structure des crédits du ministère et le Budget des dépenses de la Province. Le rapport contient des renseignements sur les postes principaux et secondaires du budget en ce qui concerne le rendement financier et les écarts par rapport aux prévisions, ainsi que des renseignements sur les postes secondaires en ce qui concerne les objectifs du ministère et les résultats obtenus. Il présente en outre des renseignements sur les organismes associés, le soutien aux entreprises, les recettes et les dépenses, ainsi qu'une récapitulation quinquennale des dépenses et de la dotation en effectif.

RESPONSABILITÉS LÉGISLATIVES

Le ministère des Sciences, de la Technologie, de l'Énergie et des Mines veille à l'application des lois suivantes :

<i>Loi sur les biocarburants</i>	B 40
<i>Loi sur la Société de développement</i>	D 60*
<i>Loi sur le Conseil de l'innovation économique et de la technologie</i>	E 7
<i>Loi sur l'énergie</i>	E 112
<i>Loi sur les gazoducs</i>	G 50
<i>Loi sur la répartition du gaz</i>	G 52
<i>Loi sur la distribution du gaz dans la conurbation de Winnipeg (L.M. 1988-89, c. 40)</i>	-
<i>Loi sur le Conseil manitobain de la recherche en matière de santé</i>	H 28
<i>Loi sur les mines et les minéraux</i>	M 162
<i>Loi sur l'indemnisation consécutive à l'exploration minière ou métallurgique</i>	M 190
<i>Loi sur le pétrole et le gaz naturel</i>	O 34
<i>Loi de la taxe sur la production de pétrole et de gaz</i>	O 37
<i>Loi sur l'aide en matière de taxes foncières et d'isolation thermique des résidences</i> [partie V, et article 1 et partie VI en ce qui concerne les sujets traités dans la partie V].....	P 143
<i>Loi sur les droits de surface</i>	S 235
<i>Loi sur le développement durable</i>	S 270
(en fonction de sa relation avec le Fonds d'action sur le changement climatique du Manitoba du Fonds des innovations de développement durable)	
<i>Loi sur la limitation des frais de chauffage en hiver</i>	W 165

Selon l'annexe « P » du décret 418/2006

*Selon l'annexe « R » du décret 44/2008

DÉVELOPPEMENT DURABLE

Le ministère veille à se conformer aux principes et aux directives énoncés dans la *Loi sur le développement durable* et s'efforce de les intégrer dans ses activités, ses programmes et ses pratiques.

Principes et directives de développement durable :

1. Intégration des décisions économiques et environnementales
2. Supervision de la gestion de l'environnement
3. Responsabilité partagée et compréhension
4. Prévention
5. Conservation et promotion
6. Récupération et remise en état
7. Responsabilité planétaire
8. Utilisation efficace des ressources
9. Participation du public
10. Accès à l'information
11. Prise de décision et planification intégrées
12. Réduction et remplacement des déchets
13. Recherche et innovation

Objectifs de développement durable en matière d'approvisionnement :

1. Éducation, formation et sensibilisation
2. Prévention de la pollution et protection de la santé humaine
3. Réduction des émissions de combustibles fossiles
4. Conservation des ressources
5. Développement économique communautaire

ORGANISATION

L'organigramme, qui se trouve à la page i, reflète la structure organisationnelle du ministère pendant l'exercice 2007/2008. L'information qui suit porte sur le rôle et les responsabilités de ce ministère ainsi que sur la dotation en personnel.

RÔLE ET RESPONSABILITÉS

MINISTRE

MONSIEUR JIM RONDEAU

SOUS-MINISTRE

MONSIEUR JOHN CLARKSON

RÔLE ET MANDAT

Le ministère donnera aux Manitobains et Manitobaines la possibilité de prospérer au moyen de l'innovation, en :

- créant des partenariats stratégiques;
- encourageant des investissements;
- créant l'infrastructure nécessaire et en y fournissant l'accès;
- encourageant l'éducation et le savoir;
- favorisant l'élaboration de politiques essentielles.

INTÉRÊT

Le ministère a été créé en reconnaissance de ce qui suit :

- ***l'innovation*** est la clé du développement économique futur et de ***la capacité de mener à bien*** les initiatives gouvernementales;
- les secteurs ***de l'énergie, des mines, du pétrole, des sciences et de la technologie*** sont essentiels à la prospérité économique du Manitoba;
- le gouvernement doit ***faire converger*** ses priorités en matière de développement économique basé sur le savoir;
- le gouvernement doit ***renforcer*** l'approche au développement économique.

Le ministère :

- polarisera les activités provinciales liées à l'innovation;
- contribuera à la croissance et au succès de nos atouts dans les secteurs de la science, de la recherche et de la technologie;
- renforcera, développera, fera croître et attirera des entreprises fondées sur le savoir;
- fera converger les besoins du gouvernement en matière de technologie de l'information;
- créera des partenariats dans la collectivité grâce à la connectivité;
- dirigera les plans de mise en œuvre du gouvernement liés au changement climatique;
- mettra en valeur, de manière stratégique, les ressources énergétiques et minérales du Manitoba en collaboration avec les secteurs public et privé;
- soutiendra l'innovation dans les collectivités et les écoles;
- fera le lien entre la réponse au changement climatique d'une part et l'innovation et le succès économique, d'autre part;
- fera le lien entre les activités liées aux technologies de l'information du gouvernement d'une part et l'innovation et le développement économique, d'autre part.

Le ministère collaborera avec les entreprises, les particuliers, les autres ministères et les collectivités aux fins suivantes :

- renforcer leur capacité de réussite;
- rehausser les compétences nécessaires à leur prospérité;
- améliorer leur image aux plans local, national et international;
- favoriser l'établissement d'un milieu propice à la croissance durable de l'économie.

Parmi les priorités immédiates et à court terme du ministère, notons :

- créer un environnement propice au développement de technologies d'énergies renouvelables;
- diriger des plans d'action et de développement coordonnés relativement à la mise en œuvre provinciale du plan du Manitoba en matière de changement climatique;
- optimiser la participation communautaire et les bienfaits découlant des prochains projets de développement de Manitoba Hydro;
- optimiser la valeur de l'hydroélectricité en vue de sa vente à d'autres provinces et états;
- maximiser les possibilités découlant de l'utilisation de nouvelles énergies renouvelables;
- faciliter le développement précoce de centres d'infrastructures essentielles dans lesquels la province a fait un investissement;
- créer un environnement qui permet de s'assurer que le grand groupe d'activité des sciences de la vie du Manitoba, notamment les secteurs de la santé, de l'agroalimentaire et de l'environnement restent compétitifs au niveau mondial;
- faciliter le développement et la croissance d'associations de l'industrie, tout particulièrement dans les secteurs des technologies de l'information et des communications et des sciences de la vie;
- créer un environnement propice aux investissements dans les entreprises manitobaines œuvrant dans le domaine de la technologie;
- aider les Manitobains et Manitobaines à maximiser les bienfaits qui découlent de la connectivité en faisant en sorte que plus de collectivités aient accès aux réseaux; en agrandissant la largeur de bande, en augmentant le nombre d'ordinateurs utilisables par les collectivités et en favorisant le développement de contenus locaux;
- chercher un meilleur soutien en ce qui a trait aux partenariats de recherche fédéraux-provinciaux;
- continuer à faciliter une capacité accrue au sein des établissements de recherche manitobains;
- mettre en œuvre et coordonner les investissements du gouvernement dans le secteur des technologies de l'information et des communications afin de s'assurer qu'on en tire le meilleur profit et d'obtenir le plus d'occasions de développement économique et communautaire possible;
- continuer à élaborer des stratégies pour sauvegarder l'information;
- offrir des activités opérationnelles, de planification et de développement en matière de technologies de l'information et des communications qui appuient les objectifs stratégiques principaux du gouvernement tels qu'ils sont définis dans les plans d'action ministériels;
- s'efforcer de collaborer avec les autres ministères et administrations et de partager avec eux des ressources et des approches, afin de réduire le chevauchement d'activités, d'améliorer le niveau de service, de tirer le meilleur profit possible des ressources et, en fin de compte, de réduire les dépenses;
- chercher des stratégies pour que les Manitobains et Manitobaines aient un meilleur accès aux renseignements, aux programmes et aux services du gouvernement.
- accroître le niveau des investissements dans le secteur des ressources minières et pétrolières au Manitoba;
- continuer à accroître la base de connaissances de la province dans le domaine des sciences de la Terre et l'efficacité des activités d'exploration aussi bien dans les zones minières établies que dans des zones frontalières;
- déterminer l'emplacement de tous les sites miniers abandonnés ou orphelins du Manitoba, établir qui en est propriétaire, faire l'historique des inspections qui y ont été faites et établir le statut de chacun de ces sites.

Pour mener à bien sa mission, le ministère est organisé en cinq divisions :

La DIVISION DE L'ADMINISTRATION ET DES FINANCES offre des services de haute direction, de planification et de contrôle des politiques et des programmes du ministère. Le soutien administratif dans les domaines des ressources humaines, des finances et de l'administration et de la gestion des systèmes d'information est fourni par le ministère de la Compétitivité, de la Formation professionnelle et du Commerce.

La DIVISION DES INITIATIVES RELATIVES À L'ÉNERGIE, AU CHANGEMENT CLIMATIQUE ET À LA STRATÉGIE VERTE élabore et met en œuvre des initiatives se rapportant au développement énergétique et au changement climatique ainsi que des stratégies de développement économique touchant les ressources hydroélectriques et les possibilités de mise en valeur d'énergies de rechange; cela inclut l'élaboration de politiques, d'initiatives et d'autres programmes provinciaux ayant trait à l'énergie et au changement climatique, ainsi que les activités de surveillance et de coordination nécessaires à leur mise en œuvre.

La DIVISION DES SCIENCES, DE L'INNOVATION ET DU DÉVELOPPEMENT DES ENTREPRISES agit comme organe central du gouvernement quant à l'offre de services de développement des entreprises à l'industrie et aux collectivités dans les domaines des sciences de la vie, des entreprises du savoir, des technologies et de l'infrastructure, afin de favoriser la croissance économique et de stimuler l'emploi; élabore des plans stratégiques et des plans d'entreprise; fournit des services de recherche, d'analyse et d'évaluation; établit, analyse et communique des politiques relatives à l'innovation, à la recherche et au développement, ainsi qu'à la technologie et aux télécommunications; veille à la mise en œuvre du Fonds pour les centres d'excellence du Manitoba et du Fonds pour la recherche et l'innovation du Manitoba; coordonne à l'échelle du gouvernement la réalisation de tous les projets dans le domaine de la recherche, de l'innovation, des sciences et de la technologie; facilite le développement économique au Manitoba en offrant des services de technologie industrielle; finance des initiatives de recherche dans le domaine de la santé; fournit des services de technologie pour l'enseignement à distance dans la province.

La DIVISION DES TECHNOLOGIES DE L'INFORMATION ET DES COMMUNICATIONS DU MANITOBA veille à la mise en place des technologies de l'information et des communications pour soutenir la prestation de programmes au sein du gouvernement du Manitoba et du secteur public élargi; élabore des stratégies, des politiques, des normes et des procédés administratifs clés relatifs aux technologies de l'information et des communications (TIC) afin d'optimiser l'offre de fonctions TIC de base, en vue d'atteindre les objectifs relatifs à la prestation de services; fournit un environnement au sein du gouvernement où les technologies appropriées font partie intégrante des critères de prestation de services; offre un cadre analytique pour examiner et approuver l'ensemble des plans, des projets et des dépenses se rapportant aux TIC; établit une relation de services avec les parties intéressées pour veiller à ce que les stratégies de services sont conformes aux priorités du gouvernement en ce qui a trait aux programmes et aux services.

La DIVISION DES RESSOURCES MINIÈRES favorise une gestion judicieuse des terres et un développement économique respectueux de l'environnement en fonction des ressources minières et pétrolières du Manitoba; fournit de la documentation faisant autorité sur les richesses minières et pétrolières de la province et sur les possibilités de développement de celles-ci; offre des programmes miniers incitatifs; administre des lois régissant la disposition des droits miniers et pétroliers, l'exploration, le développement et la production des ressources minières et pétrolières de la province, ainsi que la restauration des mines, des carrières et des installations pétrolières abandonnées; règle des différends entre les détenteurs des droits de surface et les détenteurs des droits miniers en ce qui concerne l'accès aux minéraux, au pétrole et au gaz naturel.

ADMINISTRATION AND FINANCE

The Administration and Finance Division comprises the Executive Support Offices and the shared Financial and Administrative Services section of Competitiveness, Training and Trade.

MINISTER'S SALARY AND EXECUTIVE SUPPORT

Executive Support includes the Offices of the Minister and Deputy Minister. The Minister provides leadership and direction to ensure the goals and objectives of the department are accomplished. The Office of the Deputy Minister provides the Minister with advice and information regarding issues and matters of concern to the department. Executive Support is responsible for providing the department with policy direction and the overall planning and co-ordination of departmental activities.

18-1(a) Minister's Salary

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE	\$	Variance Over (Under)	Expl. No.
Minister's Salary	45	1.00	45	-	
Total Expenditures	45	1.00	45	-	

18-1(b) Executive Support

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	441	6.00	469	(28)	
Total Other Expenditures	49		73	(24)	
Total Expenditures	490	6.00	542	(52)	

ADMINISTRATION AND FINANCE

FINANCIAL AND ADMINISTRATIVE SERVICES

Financial and Administrative Services is comprised of three primary components; Finance and Administration, Human Resource Services and Computer Services. The branch provides shared Financial, Administrative and Computer Services to the departments of Competitiveness, Training and Trade and Science, Technology, Energy and Mines. Human Resource (HR) Services that support Science, Technology, Energy and Mines and its SOAs' are part of the consolidated HR unit that also services the Departments of Culture, Heritage, Tourism and Sport, Finance and its SOAs, and the Office of the Auditor General.

OBJECTIVES

The objectives of Financial and Administrative Services are to: provide leadership, program direction and operational coordination to support department activities; to provide high quality, timely and customer responsive administrative, financial management, information technology and human resource services; develop and administer appropriate administrative and financial standards, policies and procedures; and to develop and maintain appropriate reporting systems to provide timely and accurate decision-making information to senior management in the departments and in central agencies through a centralized support service.

ACTIVITIES/RESULTS

Finance and Administration supports the mission and goals of the Department by:

- Processing payments and receipts;
- Providing computer business application development and support services;
- Administering and coordinating the Department's parking and pool vehicle programs;
- Providing for physical accommodations;
- Providing advisory and specialized accounting and financial management services to departmental personnel and related entities;
- Coordinating French Language services;
- Coordinating the departmental administration of the *Freedom of Information and Protection of Privacy Act* and *The Public Sector Disclosure (Whistleblower) Protections Act*;
- Managing the department's records management program and
- Providing timely, accurate and relevant information to departmental and central agency decision-makers including budgetary, cash flow and year end reporting.

Human Resource Services are carried out in accordance with The Civil Service Act, the Government Employees Master Agreement, Manitoba Labour Laws, and Workplace Health and Safety Legislation.

Specific activities of Human Resource Services during 2008-09 included:

Employment Equity Statistics as at Fiscal Year End

	2005-2006 Actual (%)	2006-2007 Actual (%)	2007-2008 Actual (%)	2008-2009 Actual (%)
Aboriginal	0.7	4.8	5.0	5.3
Women	48.9	39.1	40.5	39.0
Persons with Disability	1.4	4.0	3.7	3.8
Visible Minority	7.2	6.5	7.4	8.5

- The branch continues to co-ordinate the implementation of government-wide policies and initiatives.
- Provided consultation services related to position classification, employee placement strategies and chaired various boards related to the ICT restructuring initiative.

- Thirty-three regular and two term positions were filled through formal competition processes. Thirteen regular and ten temporary positions were filled through various direct appointments.
- Prepared detailed classification analysis under delegated and non-delegated authority for twenty reclassification requests.
- Consulted with management/supervisory personnel, employees and the M.G.E.U. in the resolution of various labour and employee relations issues. One formal grievance was filed.
- Maintained payroll records for 435 employees.
- Provided benefit information on fifty-eight employee appointments and ten retirements.
- Processed two WCB accident/injury claims that resulted in nineteen days time loss.
- Science, Technology Energy and Mines participated in the various Internship programs offered through the Civil Service Commission as well as the staff training seminars offered through the Civil Service Commission.

Computer Services provides the department with information technology coordination and support services including: Strategy Planning, IT Planning, Value Management, IT Governance, Project Portfolio and Business Analysis, Alignment of Business & Technology Services, Business Process Improvement, Innovation and Change Management; user education and assistance (outside the standard suite); and implementation of government wide initiatives, and adherence to guidelines and standards.

Computer Services activities undertaken for CTT/STEM during the year included:

- Establishing the CTT/STEM IT Services section as the IT coordinating unit for the two departments.
- Establishing the Business Systems Steering Committee for both departments.
- Prepare and coordinate departments Annual Information Technology Plan.
- Coordinate Desktop and Printer Refresh for CTT and STEM.
- Work with ICT Services Manitoba on the server consolidation project.
- Provide Project Management for the Integrated Mining and Quarrying System – Phase 1 - Feasibility Assessment & Solution Definition, Spatial Integration Requirements.
- Support and ICT coordination for Single Window for Business components.
- Tender, evaluate, hire and supervise Business Analysts for the following business areas: Business Start Loan Program, Provincial Nominee Program and Broadband Initiative.

18-1(c) Financial and Administrative Services

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09	Variance Over (Under)	Expl. No.
	\$	FTE \$		
Total Other Expenditures	150	150	-	
Total Expenditures	150	150	-	

ENERGY, CLIMATE CHANGE AND GREEN STRATEGY INITIATIVES

ENERGY DEVELOPMENT INITIATIVES

Energy Development Initiatives (EDI) is a key strategic element of the department. Two branches make up EDI; Energy Policy and Energy Economic Development.

Energy Policy is responsible for developing broad energy policies that support energy economic development. Energy Economic Development is responsible for promoting existing energy resources and helping to develop emerging renewable energy sources for sustainable and environmentally responsible economic growth in Manitoba.

EDI focuses its efforts on promoting and developing clean renewable energy in the province.

OBJECTIVES

The primary objectives of the Energy Development Initiatives include: developing and implementing government-wide economic development strategies encompassing Manitoba hydroelectric resources and other emerging renewable energy development opportunities; developing, analyzing and implementing provincial government's energy policies.

ACTIVITIES/RESULTS

The following provides a summary of activities:

Hydro-Electric Power Sale: EDI continued to co-facilitate discussions regarding long-term Manitoba hydroelectric power sales. Manitoba Hydro also signed term sheets for potential power sales to Minnesota Power and Wisconsin Public Service.

Wind Power: As part of Manitoba Hydro's 300 MW wind RFP, the corporation short-listed 10 projects from a total of over 80 proposals received. The 300 MW St. Joseph projected was selected from the short-list for detailed power purchase agreement (PPA) discussions. EDI provided support to Manitoba communities, First Nations and wind energy companies interested in developing or attracting wind energy projects. EDI also worked closely with the Government of Canada, and the communities of Tadoule Lake and Shamattawa to undertake wind monitoring activities in the two communities.

Geothermal (Ground Source Heat Pumps): Manitoba is a Canadian leader in geothermal through an innovative geothermal industry resulting in approximately \$30+ million of annual direct sales and approximately 950 annual geothermal installations bringing the units to date in excess of 6,500. On August 18, 2008 the Manitoba Geothermal Energy Incentive Program was announced. Province-wide incentive grants came into effect January 1, 2009 for home and building owners. For eligible new homes, approximately \$3,000.00 of geothermal incentives is available, including a refundable Green Energy Equipment Tax Credit of \$2,000.00 and an incentive grant of \$1,000.00. For eligible existing homes, a refundable Green Energy Equipment Tax Credit of approximately \$2,100.00 is typically available. Commercial building owners are eligible to receive up to 10% of the value of their installed geothermal systems and building owners who install district geothermal service systems are eligible for an incentive grant up to \$150,000.00.

Work continues to advance the development of industry infrastructure including a financial commitment of \$127K in 2008/09 to the Manitoba Geothermal Energy Alliance (MGEA). This support is to assist with the launch of the Manitoba geothermal industry association including the delivery of its quality assurance program. Also in collaboration with the MGEA, a human resource needs study was completed for the Manitoba geothermal sector.

Biodiesel: Under a 50/50 capital support program, EDI provided \$350,000 in capital support towards the establishment and expansion of two biodiesel blending and distribution facilities. \$60,000 of support was also provided to three biodiesel producers for biodiesel quality testing and plant commissioning. One new biodiesel production plant was completed, commissioned and licensed in Winnipeg. Two additional plants

were under construction in Arborg and Beausejour. EDI staff worked on the development of biodiesel mandate regulations and liaised with the Canadian General Standards Board on developing standards for Biodiesel blends above 5%. EDI and MAFRI facilitated four biodiesel market development seminars for biodiesel producers and distributors, municipalities and school boards and the trucking association,

Ethanol: EDI monitored ethanol production and distribution into the Manitoba marketplace for incentive payout purposes related to Husky Energy's Minnedosa ethanol plant. EDI continued to work with proponents interested in developing additional ethanol production facilities.

Hydrogen: EDI explored options to expand the scope of the Hydrogen Centre of Expertise to encompass a broader array of renewable energy sources. Recommendations for possible expansion of the Centre's scope are expected in 2009. EDI investigated potential use of byproduct hydrogen as a component in other energy projects (e.g. renewable diesel) and industrial processes (e.g. ammonia production).

Electricity Reliability: EDI staff worked with Manitoba Hydro, the North American Electric Reliability Corporation (NERC), and the Midwest Reliability Organization (MRO) in the developing an interim agreement on compliance monitoring and enforcement of electricity reliability standards in Manitoba. This agreement was recognized by Order in Council in February 2009. In 2008, EDI developed a letter agreement with the United States Federal Energy Regulatory Commission outlining government/regulatory staff participation and confidential information management relating to the September 18, 2007 cross border electrical system disturbance affecting parts of the mid-western United States, Saskatchewan and Manitoba. Staff actively participate in the Canada-United States-Mexico quarterly trilateral meetings on cross border electricity reliability issues.

Energy Efficiency: The Province of Manitoba's Lower Income Residential Efficiency Program expanded in Winnipeg and in Brandon. Over 300 Family Services and Housing (FSH) units and lower income homes were retrofitted to reduce energy and water consumption. Over 90 lower income Manitobans participated in the training portion of the retrofit programs. This initiative has leveraged over \$300,000 in federal funding from Natural Resources Canada's ecoENERGY program, and these funds have been directly reinvested into more retrofits. The Energy Development Initiative's partners on these programs are Manitoba Hydro, Competitiveness, Training and Trade (CTT), FSH, and Water Stewardship.

Plug-in Hybrid Electric Vehicles (PHEVs): EDI continued the PHEV demonstration program with the conversion of the first of ten vehicles and preparation for additional conversions in 2009. EDI staff along with Hymotion (provider of lithium batteries and PHEV conversion kits) resolved technical problems related to extreme cold weather operation. Red River College was certified as a Hymotion installation partner (capable of installing Hymotion's battery conversions), one of only two in Canada.

Biomass for Heat: EDI worked closely with MAFRI on two biomass supply and demand studies that will contribute to future bio- energy policy and support potential biomass producers who want to assess business potential in Manitoba. EDI staff worked with the pulp and paper industry in exploring the use of biomass as an energy source to displace fossil fuels. EDI also developed the Coal Reduction Program, as support program aimed at encouraging coal users to convert to renewable energy sources such as biomass. The program will be managed by MAFRI.

Western Grid: EDI is participating on the Western Grid Working Group which is studying the potential for a Western Grid that would connect the electric power systems of the provinces of Alberta, Saskatchewan and Manitoba. The Western Grid could form part of an East-West Grid linking other power markets across Canada. The Western Grid has the potential to help meet provincial and federal climate change targets, provide competitively clean energy and increase the security and reliability of energy supply. The working group commissioned consultants to conduct technical, economic and siting and approvals studies for the Western Grid concept.

Midwestern Energy Security and Climate Stewardship: The Province of Manitoba along with several states across the Midwestern US signed an agreement to pursue new initiatives aimed at reducing carbon emissions and promoting clean energy production and use. Manitoba's involvement in this agreement included working groups on renewable energy, energy efficiency and a cap and trade mechanism for greenhouse gas emission reductions.

18-2(a) Energy Development Initiatives

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
a) Salaries & Employee Benefits	1,027	14.00	1,180	(153)	
b) Other Expenditures	5,629		5,791	(162)	
Total Expenditures	6,656	14.00	6,971	(315)	

CLIMATE CHANGE AND GREEN STRATEGY INITIATIVES

The Climate and Green Initiatives Branch (C&GI) enhances the provincial government's climate change policy and programming efforts and coordinates climate and green initiatives across government through the Deputy Ministers' Green Initiatives Coordination Committee.

OBJECTIVES

- To develop and coordinate government-wide climate change initiatives. This includes the development of Greenhouse Gas (GHG) reduction strategies in the transportation, agriculture and municipal sectors that promote both economic development and environmental protection.
- To coordinate priority green initiatives together with lead departments as outlined in *Beyond Kyoto* the Government's updated climate action plan and *The Climate Change and Emissions Reductions Act*.
- To advance climate change impact, mitigation and adaptation research.
- To promote cooperative partnerships with the federal government on climate change programs and green policy initiatives in Manitoba.
- To work together with Green Manitoba, the Energy Development Initiative and other departments and agencies of government to advance the implementation of GHG reduction and green economic development strategies across government and in the public and private sectors.
- To promote best practices in climate change action and green policy at the sub-national level.
- To continue in the promotion of climate change public awareness, education, outreach and action.

ACTIVITIES/RESULTS

Manitoba Climate Change Action Plan Update: The Branch formally released *Beyond Kyoto* Manitoba's updated climate change action plan. The plan outlines over sixty initiatives that will be undertaken to ensure that Manitoba reduces GHG emissions to 6% below 1990 levels by 2012. The plan builds on success in energy efficiency and renewable energy development, confirms new actions to reduce emissions in Manitoba's transportation and agriculture sectors and includes new opportunities to work with businesses and communities to reduce emissions. It also includes actions to help Manitobans adapt to climate change.

The Climate and Emissions Reductions Act: Climate and Green Initiatives coordinated the development of a climate change and emissions reduction Bill for the Province of Manitoba. The Bill was enacted in June 2008. The legislation is intended to require the province to achieve emission reductions of 6% below 1990 levels by 2012.

Manitoba Hybrid Electric Vehicle Rebate Program: The program offers a \$2000.00 rebate on the purchase or lease of a new hybrid electric vehicle in Manitoba. This initiative, announced on November 15, 2006, continued to prove popular with the public. To the end of the 2008/09 fiscal year, over 1100 rebates were issued.

The Green Registry (formerly Manitoba Climate Change Registry): In April, 2007, the Government of Manitoba, the Canadian Climate Exchange (CCE) and the Canadian Standards Association (CSA) signed a Letter of Agreement to collaborate in the development of Manitoba's Green Registry. The Registry helps facilitate the development and showcasing of emission reducing projects, tracking and reporting emission reductions stemming from broad-based government programs, and helping organizations, associations, families and individuals measure and improve their GHG footprint. The Green Registry is now live with its own website (www.greenregistry.org)

The Climate Registry: Manitoba is a founding member of The Climate Registry, which was established in May 2007 by states, tribes and provinces in North America as a mechanism to measure, track, verify and publicly report GHG emissions consistently across industry sectors and borders. The Registry is a non-profit organization governed by a board of directors of U.S. and Mexican state, tribal and Canadian provincial representatives which encourages voluntary early actions to increase energy efficiency and decrease GHG emissions.

Western Climate Initiative (WCI): Manitoba became one of the first provinces in Canada to become a member of the Western Climate Initiative (WCI) in Spring 2007. The WCI released the design of its program on September 23, 2008. WCI facilitates collaboration among western states and provinces to reduce GHGs, establish a regional GHG goal and to design a market-based mechanism to achieve the targeted reductions. The Branch continues to be actively engaged in various WCI committees and work groups.

Midwestern Greenhouse Gas Accord: In October 2007, Manitoba formally signed on as a founding member of the Midwestern Greenhouse Gas Accord that aims to establish GHG reduction targets and to develop a market-based and multi-sector cap-and-trade mechanism with a strong emphasis on renewable energy. The Branch continues to be actively engaged in MGA discussions.

Green Initiatives Coordination Committee: As the secretariat to the Deputy Ministers' Green Initiatives Coordination Committee, the Branch staffed this executive level interdepartmental body which is tasked with coordinating climate actions horizontally across provincial government departments. The Committee meets monthly to report on progress toward meeting provincial climate change commitments outlined in *Beyond Kyoto*, identifies priorities for action, and areas where cross-departmental collaboration is required.

Community Programming: The Manitoba Climate Change Action Fund (MCCAF) was reconfigured in 2007 to address emissions in high-emitting sectors in addition to supporting public education and outreach programming, and providing grant assistance for individual projects. The redesigned program provides cost-effective opportunities for the Province to reduce GHG emissions in targeted-sectors consistent with the goals outlined in *Green and Growing*, Manitoba's strategic environmental framework. In 2008/09, MCCAF provided funding support of \$375,000 for 8 projects.

Coordination of Government Participation in Commuter Challenge: The Branch coordinated provincial employee participation in the 2008 national Commuter Challenge which took place June 1-7, 2008. Winnipeg placed first among five other cities of comparable population. In 2008, the event had over 13,000 individuals at 76 schools and 221 work sites from across the province participate in the Commuter Challenge. Provincial employees from all departments actively participated in the 2008 Challenge.

Vehicle Standards Advisory Board: As required by *The Climate Change and Emissions Reductions Act*, the Minister appointed the Vehicle Standards Advisory Board to review the methodology used to develop California's vehicle emission standards and make recommendations regarding a made-in-Manitoba vehicle standard. The Board submitted its report to the Minister in January 2009 as required by legislation.

18-2(b) Climate Change and Green Strategy Initiatives

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries & Employee Benefits	503	6.00	471	32	
Total Other Expenditures	432		256	176	1
Total Grant Assistance	14		14	-	
Total Hybrid Vehicle Rebate Program	1,258		500	758	2
Total Expenditures	2,207	6.00	1,241	966	

1. Professional assistance support regarding international commitments.
2. Increase in the number of rebates received under the Hybrid Vehicle Rebate Program.

GREEN MANITOBA ECO SOLUTIONS

Green Manitoba Eco Solutions is a special operating agency of the Department of Science, Technology, Energy and Mines. The Department supports Green Manitoba Eco Solutions' objective to implement a proactive and integrated community-based model of program and service delivery focused on advancing Manitoba's strategic priorities in environmental protection and sustainable resource management. Green Manitoba tables its annual report under separate cover with the Manitoba Legislature.

18-2(c) Green Manitoba Eco Solutions

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE	Variance Over (Under)	Expl. No.
Total Expenditures	5,189	4,439	750	1

1. E-Waste and Household Hazardous Waste program costs.

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

OBJECTIVES

The main focus of Science, Innovation and Business Development (SIBD) is to provide Manitoba with a comprehensive, integrated and coordinated approach to innovation, research and technology initiatives including:

- research, innovation and technology policy development and coordination;
- coordinate investments to support research and innovation in Manitoba;
- knowledge based industry development and growth;
- building Manitoba's life sciences presence;
- smart community development; and
- extending broadband access to all of Manitoba.

SIBD's mission is to *promote and enhance a climate of research, innovation and technology development that spurs responsible economic development for the benefit of all Manitobans*. Its objectives are to:

- develop public policy initiatives in support of research, innovation and technology development;
- develop a provincial innovation infrastructure;
- build and strengthen the research and innovation capacity within the province;
- build community capacity for sustained economic development in the new economy;
- build the capacity for new company formation, attraction and growth; and
- coordinate the implementation of public policy initiatives in the areas of research, information technologies, and investments.

PROGRAM AREAS

Strategic Planning and Analysis

Strategic Planning and Analysis provides a central role for the Department in areas of strategic and operational planning and organizational development. Strategic Planning and Analysis also provides policy and research support to the Department and is the lead across government on the development and implementation of policy, strategies and initiatives on innovation, science and research issues.

Knowledge Enterprises

Knowledge Enterprises works in partnership with key stakeholders to develop an innovation environment in which the Information Communications and Technology (ICT), digital media, customer contact centre sectors can thrive.

Life Sciences

Life Sciences works with multiple public and private stakeholders to strengthen Manitoba's globally competitive life sciences cluster in the health, agri-food, nutraceuticals and environment sectors, leading to positive social and economic outcomes for all Manitobans.

Broadband Initiative

Broadband Initiative works with the private sector and community based organizations in order to provide high-speed connectivity and Broadband capacity to those areas in the province where such services do not currently exist.

ACTIVITIES/RESULTS

Strategic Planning & Analysis

Manitoba Research and Innovation Fund (MRIF)

With a 2008/09 core allocation of \$11.2 million, the Manitoba Research and Innovation Fund (MRIF) is the main vehicle for provincial research and innovation funding. Established in 2003/04 the MRIF has three main components: the Research Fund; the Health Research Initiative; and the Innovation Fund. In 2008/09, it also supported the Broadband Connectivity initiative with additional funding of \$200,000, Community Connections with \$200,000 and Digital Media with \$500,000, for a total programming budget of \$12.1 million. One-time additional resources of \$839,000 were provided to the Research Fund and Innovation Fund in 2008/09 from the Urban Development Initiative.

The objectives of the MRIF are:

- to increase the capacity of Manitoba's universities, colleges, hospitals and other not-for profit institutions to carry out important world-class scientific research and technology development through the funding of research projects identified as a priority by the Province;
- to increase Manitoba's capacity for innovation through the support of science and technology awareness, technology commercialization and other strategic initiatives;
- to enhance job creation, economic growth, productivity and competitiveness;
- to encourage collaboration between and within the private sector and research institutions;
- to enhance Manitoba research institutions' abilities to attract and keep world-class researchers and skilled technicians, and to conduct state-of-the-art research; and
- to develop improvements for Manitobans' health, environment, and quality of life.

Research Fund

The Research Fund provided over \$7.9 million of support in 2008/09 to expand Manitoba's research capacity. In 2008/09, projects approved for funding included: the Churchill Northern Studies Centre renewal project; Rick Hansen Fund; CancerCare Manitoba's NorCOMM (North American Conditional Mouse Mutagenesis Project/Knock-out Mouse Project) which is a major project supported by Genome Canada with research collaboration from around the world; Genome Canada's "Designing Oilseeds for the Future"; Manitoba Centre for Proteomics and Systems Biology; other Genome Canada and stand-alone projects; various Canada Foundation for Innovation (CFI) projects at the Universities of Manitoba and Winnipeg; the International Centre for Infectious Diseases; and the Science and Technology International Collaboration Fund.

Health Research Initiative

HRI funding, totalling \$2.0 million was provided to five Manitoba health research centres in 2008/09 to assist in supporting research overhead costs. The program funds were apportioned to each centre according to a formula that has been used consistently since the program's inception in 1996/97. Payments to each HRI participant in 2008/09 were as follows:

CancerCare Manitoba	\$ 180,000
Manitoba Institute of Child Health	\$ 140,000
Health Sciences Centre	\$ 380,000
St. Boniface General Hospital Research Centre	\$ 340,000
University of Manitoba	<u>\$ 960,000</u>
Total	\$ 2,000,000

Innovation Fund

This program element is used to assist the implementation of identified strategic Manitoba Government innovation priorities. Funding in this stream is catalytic, supports the broader industry in developing their innovation structures, and promotes economic development by leveraging and expanding research capacity and assisting with technology commercialization.

In 2008/09, over \$2.4 million of Innovation Fund support was provided to various projects including the following:

- Biomedical Commercialization Canada
- Brandon CANARIE
- Business of Science
- Canada Wide Science Fair
- Centre for Innovation Studies
- E-Index
- Fortune Cat Video Games Incubator
- ICTAM
- Manitoba Agri-Health Research Network
- Manitoba Serious Gaming Industry
- Manitoba Visual Network
- MindSet
- MITACS
- National Aboriginal Achievement Awards
- TRLabs
- University of Manitoba Smartpark
- Virtual Reality Fund
- Westlink

Manitoba Centres of Excellence Fund (MCEF)

The Manitoba Centres of Excellence Fund (MCEF) is the Manitoba Government's research and development support mechanism for those Manitoba based researchers who have been successful under the Federal Government's Networks of Centres of Excellence (NCE) initiative. The national headquarters for the Intelligent Sensing for Innovative Structures (ISIS) network that conducts research and development on advanced composite materials and electronic sensors for construction engineering projects such as bridges and earthquake resistant buildings is located at the University of Manitoba, and has received major MCEF support over the past decade. Since its inception in 1989/90 MCEF has provided some \$7.7 million of matching support for projects.

During 2008/09, MCEF support totalling \$649,915 was provided to the following Manitoba projects and leveraged federal NCE research funding at the 5:1 ratio:

- Advanced Foods and Materials Network
- Allergy, Genes and Environment Network
- ArcticNet
- Canadian Arthritis Network
- Canadian Water Network
- Geomatics for Informed Decisions Network
- Intelligent Sensing for Innovative Structures
- Mathematics of Information Technology and Complex Systems
- Sustainable Forest Management Network
- The Automobile of the 21st Century

Science and Technology International Collaboration Fund (STIC)

In 2007/08 a new program called the STIC Fund was launched to support international collaborative research projects with the potential to generate commercial activity and economic benefit for the Province of Manitoba. A million dollars per year for five years has been set aside from the research component of MRIF to support a variety of international research collaborations.

Projects funded under the STIC fund in 2008-2009 include:

- Dr. Frank Plummer, Public Health Agency of Canada and Hebrew University – HIV/AIDS research (\$100,000)
- Dr. Jim House, University of Manitoba and the University of Adelaide – Functional foods (Omega 3) (\$80,000)
- Dr. Michael Freund and the California Institute of Technology – Renewable energy systems (\$50,000)
- Dr. John Wilkins, University of Manitoba and the University of Adelaide - Proteomics (\$100,000)
- Dr. Curtis Rempel and the University of Adelaide – Functional foods (\$100,000)
- Dr. Robert Hill, University of Manitoba and the South Australian Research and Development Institute (SARDI) - Brassica Development (\$100,000)
- Dr. Geoff Hicks, University of Manitoba and Institute for Medical Research, Monash University - Genomics (\$150,000)

Manitoba Network for Science and Technology (MindSet)

The Manitoba Network for Science and Technology (MindSet) is a STEM sponsored initiative led by a full-time Program Coordinator that supports the development, co-ordination and implementation of year-round science and technology awareness activities in Manitoba. MindSet encourages and promotes:

- scientific and technological awareness, knowledge, ability and skills;
- improved school-to-work transition in science and technology areas; and
- innovation in science and technology.

In particular, MindSet's role is primarily one of facilitating, networking, communicating and implementing activities, especially in areas important to the provincial economy. These areas include information technology, biotechnology, aerospace, advanced manufacturing, composites and new materials and digital media.

MindSet's key activities in 2008/09 included:

- Girls in Gaming Program
- Microsoft Partnership Programs
 - Partners in Learning (PiL) Program
 - Peer Coaching
 - MARVIN Software Training
 - 21st Century Leadership Program
 - Innovative Teachers Awards
- MindSet Summer Institutes
- National Biotechnology Week
- New Media Workshops
- Sanofi-Aventis BioTalent Challenge
- Science Fairs
- Teacher Professional Development Workshops
- Teaching With Games
- Videoconference Mentoring
- Win-Cube Student Satellite Program

MindSet continues to play a critical role in creating awareness and interest in science and technology careers among Manitoba educators and students. MindSet was recognized internationally for its innovation in 2008 by winning an International Partnership Network Global Best Award for its programs in developing skills for the future workforce.

Manitoba Health Research Council (MHRC)

In 2008/09, the Department provided \$6.0 million in funding to the Manitoba Health Research Council to support research grants and personnel awards it provides to the research community and for the administration of the Council. This funding also helped implement the *Envisioning the Future* strategic plan developed by the Council.

MHRC's new strategic direction is based upon four action areas which will increase the strength and capacity of the health research community in Manitoba:

- Establish MHRC as the coordinating body for health research in Manitoba;
- Develop, recruit and retain the best research faculty;
- Facilitate research networks, linkages and communication; and
- Move research evidence into practice.

In 2008/09, the MHRC implemented two new programs which were focused on developing, recruiting and retaining the best research faculty. The Manitoba Research Chairs supported three early to mid-career researchers who were identified as stars and work in the areas of HIV vaccine development, translation cancer research and genes that control the growth of blood vessels. MHRC also supported three clinical research fellows who are health care professionals doing graduate work in health research and, when complete, are well equipped to do research which moves from the lab bench to the patient. MHRC also worked with four partners (CancerCare Manitoba, Health Sciences Centre Foundation, Manitoba Institute of Child Health, and the St. Boniface Hospital Research Centre) to increase support for trainees in Manitoba and leveraged over \$400,000 in funds.

Members of the MHRC Board of Directors are:

J. Dean Sandham, Dean, Faculty of Medicine, University of Manitoba (Chair)
Judith Bartlett, Associate Professor, Centre for Aboriginal Health, University of Manitoba
Lynn Bishop, Chair, Health Sciences Centre Foundation and General Manager, Cargo Jet
Henry Friesen, Distinguished Professor Emeritus, University of Manitoba
Albert D. Friesen, President and CEO, Medicare
Ray Hoensen, Director, Applied Research and Commercialization, Red River College
Digvir Jayas, Vice-President, Research, University of Manitoba
Arnold Naimark, Director, Centre for the Advancement of Medicine
Brian Postl, CEO, Winnipeg Regional Health Authority
Brent Schacter, Chief Executive Officer, Canadian Association of Provincial Cancer Agencies
Ian Smith, Director General, National Research Council Institute for Biodiagnostics

Ex officio appointments:

John Clarkson, Deputy Minister, Manitoba Science, Technology, Energy and Mines
Arlene Wilgosh, Deputy Minister, Manitoba Health

Additional information is available from the MHRC Annual Report.

Knowledge Enterprises

The Knowledge Enterprises Branch activities for 2008/09 were focused mainly in the following five areas:

1. Creating an Environment Fostering ICT and Digital Media Business Development
2. Increasing ICT and Digital Media Research and Technology Commercialization
3. Marketing and Attracting Investment in Manitoba's ICT and Digital Media Sectors
4. Ensuring a skilled and available ICT labour force
5. Enhancing The Capacity Of Manitoba Communities To Participate In The Knowledge Economy

1. Creating An Environment Fostering ICT and Digital Media Business Development

Industry and Professional Associations

The branch worked closely with relevant industry and professional associations to promote competitiveness within Manitoba's knowledge based businesses; nurture the growth of an advanced technological infrastructure; and ensure the recruitment and retention of a skilled labour force. Such organizations include the Information and Communications Technologies Association (ICTAM), New Media Manitoba, The International Game Developers Association (Manitoba Chapter), and the Manitoba Customer Contact Association.

Business Incubation

The Knowledge Enterprises Branch continued to be actively involved with three technology business incubation projects; The Eureka Project; Smartpark's Incubator, Biomedical Commercialization Canada (BCC) and the Fortune Cat Games Studio.

- **The Eureka Project** is a technology incubator focused on the priority sectors of information technology and wireless communication, advanced manufacturing and materials, functional foods and nutraceuticals and ag-biotech. Located at the University of Manitoba Smartpark, the incubator's objective is to provide the space, management expertise and resources for the successful development of high technology start-up companies in Manitoba; from the university and the community at large. The Branch continues to work with the program in an advisory capacity and provided a \$205,000 contribution under the Manitoba Research and Innovation Fund to support the continued operation of the incubator.
- **BCC** is a private sector, not-for-profit organization located at the Centre for Commercialization of BioMedical Technology. It provides a host of resources and people to help early-stage science and technology companies enter the market, secure investment and/or pursue their acquisition strategy. BCC assists its clients in the areas of: Facilities and Infrastructure, Mentoring, Coaching and Participation, and Finance and Investment. The Branch continues to work closely with the program and provided a \$290,000 contribution under the Manitoba Research and Innovation Fund to support the continued operation of the incubator.
- **Fortune Cat Games Studio** is a not-for-profit organization that is building on Manitoba's expertise and competitive advantages in the global video games industry. The incubator studio houses small video game companies of three to five people where each team is to produce a video game prototype that will be marketed to video game publishers. Fortune Cat Games Studio incubator is a collaboration of various strategic partners including the Winnipeg Partnership Agreement, Telefilm Canada, International Games Developers Association (IGDA) - Winnipeg Chapter, Red River College, Province of Manitoba, Industry Canada and Destination Winnipeg. The Branch continues to work closely with the program and provided a \$106,000 contribution under the Manitoba Research and Innovation Fund to support the continued operation of the incubator.

New Market Readiness

STEM provided \$25,000 this year to support the Market Access Program (MAP); a pilot project led by the ICT Association of Manitoba. MAP is a \$1.8M project that is creating and disseminating, in an accessible way, a domain of knowledge to assist Manitoba companies in raising their level of 'readiness' to enter into trade, technology partnering, and export activities in the United States. This unique approach is designed to integrate more fully with the company's planning processes through pre-programming diagnostic services and optimize returns in terms of the success factors associated with global competitiveness through training and hands-on mentoring.

Manitoba Interactive Digital Media Fund (MIDMF)

In 2008/09 \$300,000 was allocated to MIDMF. The objectives of MIDMF are: to provide recoupable financial support to Manitoba companies for the development, production, and marketing of high quality, original, Interactive Digital Media products that are intended for the general public; to raise the profile and presence of Manitoba's Interactive Digital Media creators in both domestic and international markets while providing opportunities for professional development; and, to assist in the growth and development of a Manitoba Interactive Digital Media production and distribution industry that is competitive in international markets.

- **Product Assistance:**

In the 2008/09 fiscal year, 1 application was approved for a total contribution of \$44,165.

- **Access to Markets:**

In the 2008/09 fiscal year, 10 applications were approved for a total contribution of \$21,000.

- **Industry Support**

In the 2008/09 fiscal year, 3 proposals were approved for a total contribution of \$165,000.

New Media Manitoba

New Media Manitoba is a non-profit association of professionals that advocate and provide focused training, support and guidance to the new media business and development community. Comprised of over 650-members, NMM is a common ground for people seeking to make connections and collaborate on interactive digital projects. STEM provided \$150,000 to New Media Manitoba via the MIDMF for a project that will provide:

- An interactive online directory of digital media companies and their skills,
- A video showcase of local new media companies,
- Promotional activities with local and international partners, and
- Support of the Manitoba Interactive Digital Media Fund and the Manitoba Interactive Digital Media Tax Credit

Manitoba Interactive Digital Media Tax Credit (MIDMTC)

The MIDMTC was introduced in 2008-09 to stimulate investment in Manitoba's digital media industry and is a refundable corporation income tax credit for companies that develop and produce interactive digital media products in Manitoba. This is a 40% tax credit (maximum of \$500,000) to qualifying corporations for eligible Manitoba labour expenditures that are directly attributable to the development of an eligible interactive Digital Media Product. Four certificates of eligibility were issued in 2008/09.

ICT and Digital Media Trade and Export

The Branch provided support for an ICTAM led business mission to Chicago in February of 2009. The objective of the mission was to provide participating companies with a range of technology and business partnering opportunities through one-on-one, pre-qualified meetings. Five companies participated in the matching process, working with ICTAM, the Canadian Consulate in Chicago and Chicago-based consultants to screen prospective partners, clients and investors. A number of opportunities were identified and activities continue on this front.

2. Increasing ICT and Digital Media Research and Technology Commercialization

TRLabs

Fiscal year 2008/09 represented the third year of a renewed 5-year, \$2.4 million funding agreement with TRLabs. The Manitoba lab met or exceeded the majority of their performance metrics for the fiscal year. The Knowledge Enterprises Branch continues to work actively with TRLabs to explore ways to grow the number of applied research and commercialization projects undertaken with local Manitoba companies. In the past year, the Manitoba lab added 9 new partners and initiated more than 11 new projects in three main areas of research: e-health; e-home; and connected media. STEM co-hosted the annual TRLabs Community Dinner and also provided support for the TRLabs ICT symposium on, "E-Health Benefits: Fact or Fiction?" which experienced record attendance levels this year. The Manitoba lab also brought together eHealth researchers from academia, healthcare providers and strong project support from a number of TRLabs partners, including MTS Allstream, the University of Manitoba – Northern Medical Unit, Red River College and the Province of Manitoba for a Collaborative Healthcare Team project which will attempt to improve healthcare delivery for residents in remote and northern communities.

Financial Assistance Programs

In concert with Manitoba Competitiveness, Training and Trade, the Knowledge Enterprises Branch continues to work with a number of technology-based companies to provide support for technological assessments and marketing evaluations for business expansion purposes. In 2008/09, five ICT/Digital Media companies and organizations received support through the Business Development Fund, which includes the Technology Commercialization Program, the Feasibility Studies Program and Special Projects Fund.

3. Marketing Manitoba's ICT and Digital Media Sector and Attracting ICT and Interactive Digital Media Investment

Manitoba Digital Media Market Development/Investment Attraction

Similar to the film/television industry, the scale and scope of Manitoba's local digital media industry is limited by available resources, such that outside work is an important factor in increasing the volume of activity and supporting infrastructure in the province. In 2008/09, STEM continued its collaboration with a consortium of Manitoba stakeholders and private sector companies in the "Game on Manitoba" initiative. To develop these linkages STEM attended the Game Developers Conference (GDC) in San Francisco and supported the Serious Games Conference held in Winnipeg March 16th, 2009.

4. Ensuring a skilled and available ICT labour force

In addition to its support of the MAP program, the Branch provided \$15,000 in support this year for an Aboriginal Liaison Officer (ALO) with ICTAM. The ALO's mandate is to act as liaison between ICTAM, industry, government representatives and the Aboriginal community to facilitate and promote the attraction, recruitment, training and retention of Aboriginal employees within the Information and Communications Technologies sector. Paired with contributions for the Departments of Aboriginal and Northern Affairs and Competitiveness Training and Trade, staffing of this position is assisting to foster a knowledgeable and growing workforce for the ICT sector and ensuring that the Aboriginal community in Manitoba plays a meaningful role in the sector through employment.

The Branch also provided \$5,000 in support for representatives of the ICT sector to participate in a Recruitment Fair in London, England. The mission enabled representatives to assess the UK as a market for Manitoba ICT firms focusing on the recruitment of highly skilled ICT professionals and the opportunities for technology partnership and capacity building. This activity was the beginning of a new focus area for the sector, where firms will seek to address skill shortages in key high –demand senior positions through direct recruitment from other markets.

5. Enhancing Capacity of Manitoba communities to participate in the Knowledge Economy

E-Index

The Knowledge Enterprises Branch worked closely with government and community stakeholders to advance "E-Readiness" in Manitoba communities as defined by the assessment of community, organizational and individual capacity to fully participate in the knowledge based economy through the utilization of appropriate skills and infrastructure. This assessment is enabled by a made-in-Manitoba tool called the E-Index. The E-Index provides information on four elements; a community's level of technological infrastructure, the population's skill level, the utilization of technology as well as the community's capacity to afford technology. A community's capacity across these four elements can be directly correlated to their ability to achieve and maintain competitiveness as communities evolve from traditional to knowledge based economies.

In 2008/09 the Knowledge Enterprises Branch was engaged with jurisdictions outside of Manitoba to further the reach of E-Index and lay the foundation for partnerships in this area across the country. The Branch also provided \$180,000 to the University of Winnipeg for a research project aimed at advancing E-Index methodology.

Life Sciences

The Life Sciences Branch worked with key stakeholders in 2008/09 on initiatives in the biomedical, health biotech, and agricultural biotech sectors that lead to increased economic activity in the province.

The efforts of Life Sciences Branch in 2008/09 were primarily focused on four activities:

1. Working With Key Stakeholders on Economic Development Initiatives
2. Supporting Research
3. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally
4. Establishing Formalized Linkages

1. Working With Key Stakeholders on Economic Development Initiatives

Mid-Continent Knowledge Corridor

The purpose of the Mid-Continent Knowledge Corridor is to capitalize on established relationships through the North America Super Corridor Coalition (NASCO), develop a network of researchers, industry representatives, and government officials that will work collaboratively to strengthen the life sciences cluster along the central corridor of North America. It is anticipated that this knowledge corridor will also attract investment and research partners from the east and west coasts.

The Life Sciences Branch is working cooperatively with Destination Winnipeg and partners in the USA and Mexico to develop a preventative food product that addresses the diabetes burden in all three jurisdictions.

In addition, the Life Sciences Branch is actively working with partners in Minnesota to develop linkages between the two jurisdictions. Research institutes and industry partners in the areas of medical devices and agri-health products have been actively engaged.

Manitoba Agri-Health Research Network

Manitoba Agri-Health Research Network (MAHRN) has been established as a portal to the Province's nationally and internationally recognized centres involved in the commercialization of agricultural products for improved health. Manitoba's agri-health sector is home to three leading edge facilities that work closely with industry to research and develop functional foods and nutraceuticals: Canadian Centre for Agri-food Research in Health and Medicine, Richardson Centre for Functional Foods and Nutraceuticals, and the Food Development Centre.

Life Science Association of Manitoba (LSAM)

The Life Science Association of Manitoba represents Manitoba's growing life sciences sector. The Association's objectives are to coordinate activities to address member needs and concerns and to inform members of changes in the global biotech industry. The current LSAM mandate focuses on four pillars. These include:

- 1) Building human resource capacity,
- 2) Serve as sector advocate,
- 3) Build the local life science community, and
- 4) Promote economic development.

LSAM is working closely with STEM staff on sector specific outreach activities.

2. Supporting Research

The Life Sciences branch was instrumental in securing funding for the Composites Innovation Centre (CIC) from Agriculture and Agri-Food Canada in continued support for a National Biofibres Initiative for the development and commercialization of bio-materials for advanced composite applications. The project will investigate how naturally occurring fibres in plants, such as hemp and flax, can be turned into reinforcement materials that replace the man made glass and carbon fibres in products like parts for buses, recreational vehicles, sporting goods and aircraft. The work being undertaken within this initiative is highly relevant to the emergence of Manitoba's and Canada's bioeconomy and will lead to the commercialization of a range of new industrial products.

In addition, there has been support for international collaborative research projects through the Science and Technology International Collaboration (STIC) fund.

3. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally

AusBiotech 2008 Conference

AusBiotech 2008 Conference and Exhibition was held in Melbourne, Victoria, Australia in October 2008. The theme for the 2008 conference was "Building a Bio Economy". Life Sciences Branch staff and stakeholders from Manitoba's life sciences community attended the conference and participated in partnering meetings to showcase and promote Manitoba's life sciences sector and to identify opportunities to increase collaboration between the two jurisdictions. Approximately 1,500 participants from Australia and the international community were in attendance. Manitoba, once again, had a strong presence at the conference. In conjunction with AusBiotech, meetings were held with government and life science industry representatives in Sydney, New South Wales; Brisbane, Queensland; and Adelaide, South Australia. Opportunities for inward investment, partnerships and research collaborations were identified at these meetings.

NZBio Conference 2009

The NZBio Conference 2009 was held in Auckland New Zealand on March 9th - March 11th, 2009. Staff from the Life Sciences Branch and stakeholders from Manitoba's life sciences community attended the conference and participated in the conference program and partnering meetings to showcase and promote Manitoba's life sciences sector and to identify opportunities to increase collaboration between the two jurisdictions. Manitoba also hosted a reception at the conference. The event included more than 800 delegates from a wide range of organizations, including core biotechnology companies, research organisations, suppliers, multinationals, industry service providers, educators and investors from New Zealand, Australia and other Asia-Pacific countries. In addition, meetings were held with government and life science industry representatives in Auckland and Dunedin. One-on-one business meetings held at the event and during out-call meetings identified opportunities for inward investment, partnerships and research collaborations.

BIO 2008 International Biotechnology Convention and Exhibition

Each year, the Biotechnology Industry Organization (BIO) hosts the world's premier biotechnology conference, bringing together scientists, entrepreneurs and innovators from around the world. Held in San Diego, California, BIO 2008 drew a record of over 22,000 attendees, with representatives from 48 states and 68 countries. One-third of attendees came from outside the United States. Of these attendees, more than 50% possessed senior level titles, allowing for the opportunity to interact and form partnerships among the world's life science leaders and key decision-makers.

In response to interest from Manitoba biotechnology companies and research centres, 1000 square feet of exhibit space was purchased for a Manitoba pavilion at BIO 2008. Within the pavilion, Manitoba exhibitors included: Cangene Corporation; Red River College; University of Manitoba; Industrial Technology Centre; Life Sciences Association of Manitoba; Genome Prairie; Manitoba Agri-Health Research Network; Composites Innovation Centre; and Manitoba Science, Technology, Energy and Mines. In total, approximately 50 Manitobans participated in BIO 2008. The companies indicated their appreciation for the leadership shown by the Province at BIO 2008 and have requested both continued and enhanced provincial participation at BIO 2009 in Atlanta. A strong Manitoba team approach and novel concepts were undertaken to support exhibitors for 2008, designed to give the participating companies and research institutions even higher profile and greater impact at the convention.

Business of Science Symposium 2008

The Business of Science Symposium is a two-day conference designed to highlight Manitoba's growing life science industry, and in so doing, educate stakeholders on industry capabilities, celebrate local accomplishments, and promote both business and career opportunities. The Symposium serves to strengthen the province's primary life sciences sectors, agriculture, health and environment, by demonstrating Manitoba's notable proficiencies and facilitating the development of partnerships. The seventh annual Symposium was held in Winnipeg on October 21st – 22nd, 2008.

In previous years, the Province was responsible for the organization of the Business of Science Symposium and provided the majority of funding to the conference. LSAM is now responsible for running the conference. In the current organizational structure, the steering committee solicits sponsorship; the Province of Manitoba was a platinum sponsor and hosted the conference's gala dinner. The Branch remained active in the event as a member of the Symposium's Steering Committee. The Life Sciences Branch was also responsible for the organization of the post-secondary student component of the conference, aimed at making university and college students from the major post-secondary institutions aware of life science career opportunities at home in Manitoba.

The event was an opportunity for people to come together, over the course of the two days, to focus on the bright future of Manitoba life sciences industry. Those in attendance included business leaders, researchers, science and technology innovators, life sciences students and educators, capital providers, and government officials who support the life sciences sectors. Ultimately, the Business of Science Symposium was a success in showcasing existing possibilities for collaboration with local companies, and in capturing the momentum of Manitoba's dynamic life science industry.

Life Science Alley Conference 2008

The LifeScience Alley (LSA) Conference & Exhibition is an annual event hosted by LifeScience Alley, Minnesota's life sciences industry association. This event was held on December 10th, 2008 in Minneapolis, MN and attracted approximately 1,600 delegates from 30 states and a dozen countries. The Province of Manitoba was one of two premier sponsors of the conference. Manitoba's sponsorship of this event builds upon the ongoing commitment by Manitoba and Minnesota to establish a life sciences corridor between the two jurisdictions, as articulated within a 2004 MOU for biosciences and life sciences collaboration.

In addition to Manitoba's sponsorship of the LSA conference, a record delegation of 25 Manitobans representing 5 companies and research institutes attended the conference and participated in meeting programs.

Through participation at the conference, Manitoba continued to develop strategic linkages with partners in Minnesota and gained visibility as a leader in the mid continent knowledge corridor.

4. Establishing Formalized Linkages

Pharmaceutical Liaison Committee

In June 2006, the Pharmaceutical Liaison Committee (PLC), co-chaired by the departments of STEM - Life Sciences Branch and Health, was established to provide a central point of contact between government and the pharmaceutical and biotechnology industries. The Committee provides a discussion forum between industry and key government departments including, Science, Technology, Energy and Mines, Health, and the Community Economic Development Committee of Cabinet. The Committee also facilitates internal discussion, which ensures consistent application of decisions within the life sciences sectors in Manitoba.

STEM and Health's active cooperation in the work of this committee is viewed very positively by industry members and is continuing to provide a forum for open discussion.

Broadband Initiative

Since its creation in September 2001, the Broadband Initiative has been active in promoting partnerships with community based organizations and the private sector to provide broadband or high-speed Internet access to communities where that service did not exist. The Province's vision is to utilize high speed Internet connectivity to secure economic and social benefits available through the use of information and communications technologies for the benefit of Manitobans.

The Initiative has supported activities undertaken by Industry Canada's Broadband for Rural and Northern Development (BRAND) Program. This \$150 million National initiative announced in September 2002, has provided 118 Manitoba communities with a total of \$6.6 million in matching funds to enable the creation of broadband networks throughout the province.

In July of 2004 the province's new Broadband Strategy entitled Connecting Manitobans was approved. The strategy's main objective is to ensure that all communities in Manitoba have access to broadband or high speed network services by 2010. In order to help attain this goal, the Municipal Rural Infrastructure Fund (MRIF) has, since June 2005, allocated \$7.5 million to community based telecommunications infrastructure construction thereby allowing a further 67 Manitoba communities to benefit from accessing Broadband networks.

In 2008/09 the Initiative worked directly with community champions to help develop viable community-based Internet Service Providers (ISPs) in aboriginal communities. This work will continue into 2009/10. Initial focus will be on four associated communities including Lynn Lake and Leaf Rapids. Also in 2009/10, the Manitoba Network Task Force and the Initiative will work with ISPs in Manitoba to secure funding from the Federal government's \$225 million Infrastructure Fund which is intended to fund network infrastructure in unserved areas of Canada, and will also work with First Nations communities to secure funding from the First Nations Infrastructure Fund (FNIF) assisting First Nations to build "last mile" infrastructure in unserved First Nations communities in Canada.

Community Connections

On March 7th, 2000 the Governments of Canada and Manitoba announced a cost-sharing Memorandum of Agreement (MOA) of up to \$11.1 million to increase the number of public Internet access sites in Manitoba from 146 to 586. The MOA with Industry Canada was extended providing a further \$2.48 million for the 2002/03 and 2003/04 fiscal years. In 2008/09 there was \$583,784 in funding support provided to Community Connections. These funds were used to; support the existing access sites, further develop the Community Resource Networks (CRN's) and the content of their websites, provide Help Desk support and, to support the Canada Access Program Youth Initiative (CAPYI). In 2008/09 Community Connections became part of the programs delivered by MERLIN. MERLIN contracts with the Manitoba E-Association for management of the Community Connections/MERLIN program.

In Winnipeg, 201 sites were established and in rural Manitoba 338 sites were established. Of note, 61 sites were established in Northern Manitoba, and approximately 50 access sites in bilingual Manitoba municipalities. Sites were established in a variety of community organizations. The capacity of all public libraries was significantly increased. Funding support available to the access sites included funds for connectivity, assistive technology and small grants for local communities' broadband initiatives. In 2008/09, 347 sites requested funds. It is estimated that about 53 sites continue to provide services without requesting funding. Community access sites are organized into Community Resource Networks (CRN's) that jointly develop and host local websites. Approximately 25 CRN's were developed.

Out of the work done through the Community Connections Initiative, the youth development team from Brandon University developed into a small Manitoba software development company Function Four, Inc. This group with the support of Community Connections, and Industry Canada developed the CIMNet applications used for the community websites and the E-Index. The websites referenced above as well as 83 other community websites are managed by the Manitoba E-Association for Community Connections/MERLIN.

Technical and application support was originally provided to access sites by a Help Desk established by the Swan Valley Resource Network with support from Community Connections. This developed into a small Manitoba company (83 North, Inc.). A similar Francophone helpdesk was developed in partnership with Réseau de Ressources Communautaires Franco-Manitobain. The Help Desk was expanded in 2003/04 to provide service to Saskatchewan, Alberta, Nunavut and the North West Territories. Toward the end of 2003/04 the two separate services merged to form a not-for-profit organization known as HelpCan. In 2004/05 help desk services were migrated to the Manitoba E-Association for delivery in Manitoba and some locations in Saskatchewan, Alberta, Nunavut and the North West Territories. This continued from 2005-2009.

The CAP Youth Employment Initiative (CAPYI) employs approximately 50-60 Youth (age 16 to age 30) annually. Youth employees are funded through a partnership with funding of approximately \$500,000 from various partners including; Community Connections, Industry Canada, MB Education, and Microsoft. Youth support the operation of access sites and the CRN web sites. Toward the end of 2003/04, the Manitoba E-Association, a not-for-profit organization, was established to serve as the delivery agent for the CAPYI program. In 2004/05 this organization expanded to deliver help desk services. Throughout 2005 to 2009 in addition to delivering Help Desk services and CAPYI, the Manitoba E-Association also coordinated communication for the Canada Access Program in the Prairie Northern Region (PNR), published a newsletter, delivered project management services for the Parkland Region Wireless Broadband Rollout, and the Central Region Wireless Broadband Rollout with funding from the Manitoba Canada Infrastructure Program for a high speed wireless projects, delivered Mobile Technology Workshops, and continued in developing a community learning network in Canupawakpa First Nations community through the federal Office of Learning Technologies. In 2008/09 the Manitoba E-Association also took on the project management role of the Community Connections/MERLIN program.

18-3(a) Science, Innovation and Business Development

Expenditures by Sub-Appropriation	Actual 2008/09	FTE	Estimate 2008/09	Variance Over (Under)	Expl. No.
	\$		\$		
Total Salaries & Employee Benefits	1,460	19.00	1,570	(110)	
Total Other Expenditures	629		677	(48)	
Total Manitoba Research and Innovation Fund	11,919		12,100	(181)	
Total Manitoba Centres of Excellence Fund	650		720	(70)	
Total Less: Recoverable from Urban Development Initiatives	(750)		(750)	-	
Total Expenditures	13,908	19.00	14,317	(409)	

MANITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

18-3(b) Manitoba Health Research Council

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09	Variance Over (Under)	Expl. No.
	\$	FTE \$		
Total Expenditures	6,003	6,003	-	

INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Science, Technology, Energy and Mines. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

18-3(c) Industrial Technology Centre

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09	Variance Over (Under)	Expl. No.
	\$	FTE \$		
Total Expenditures	750	750	-	

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS

The Manitoba Education, Research and Learning Information Networks (MERLIN), is a special operating agency of the Department of Science, Technology, Energy and Mines. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

18-3(d) Manitoba Education, Research and Learning Information Networks (MERLIN)

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Expenditures	446		446	-	

MANITOBA INFORMATION AND COMMUNICATION TECHNOLOGIES

ICT SERVICES MANITOBA

OBJECTIVES

Ensure the best possible use of the province's existing information and communication technology (ICT) resources, systems, platforms, applications, and skills, while finding new ways to meet service challenges, plan for future needs, and respond to economic opportunities.

ACTIVITIES/RESULTS

- Develop and continually improve ICT strategic plans, policies, and measurement protocols.
- Work with stakeholders to optimize and align the ICT investment portfolio.
- Research and design new ICT products and services to help build new effective solutions.
- Establish flexible and adaptable information, application and technology foundations.
- Establish and monitor security standards and architecture.
- Exercise comptrollership responsibilities and provide overall financial leadership for ICT.
- Coordinate and manage the use of ICT resources across the ICT program portfolio.
- Proactively manage ICT contracts and license agreements.
- Plan, recruit, allocate, evaluate, train and develop resources for ICT work.
- Manage the process of implementing major changes in ICT to reduce the risks and costs of change, and to optimize its benefits.
- Manage the relationship between ICT and clients to ensure needs are addressed.
- Provide client support in the day-to-day delivery of ICT services.
- Proactively monitor service and process outcomes in relation to service contract conditions and performance goals.
- Improve the efficiency and effectiveness of project delivery through application of standard project management practices.
- Develop, deploy and support critical ICT infrastructure services.
- Develop and integrate applications to create functional systems responsive to the requirements of clients' program delivery needs.
- Maintain and operate existing applications that support the delivery of government program services.

ICT SERVICES MANITOBA reports the following results in 2008/09:

- Alignment of ICT investments with Government's overall strategic direction is on-going.
- The project to consolidate servers is continuing. This project will enable government to manage ICT services more cost effectively.
- Provided Wide Area network services (i.e. PDN services) to the health sector. Services are being augmented as necessary to support new Health IT initiatives.
- Provided a government-wide information security awareness program designed to educate staff on their responsibilities to protect the information entrusted to them.
- Provided on-going problem resolution and system enhancement activities for all managed business applications.
- Worked with the Office of the Auditor General to improve practices and policies around systems which support Public Accounts
- Delivered inventory solutions to both the Manitoba Development Center and the Selkirk Mental Health Center re-using the component built under the SMART project.

- Improved performance of Parks Reservation System to handle opening day peak volumes.
- Implemented improvements to the Family Court Order system to accelerate the handling of standard court proceedings.
- Provided courtrooms with live data related to reasons for remand and access to logs of specific incident information
- Enhanced the SAP payroll system to support reductions in the hours of work for Manitoba Civil Service Nurses
- Delivered the Job Referral System (JRS) to Education, Citizenship and Youth
- Delivered the Career Development Initiative to Competitiveness Training & Trade, Education Youth and Citizenship and Advanced Education and Learning
- Implemented the Watershed Maps System on behalf of Water Stewardship
- Completed the scoping phase for the Medical Claims System replacement project and the Student Financial Aid System replacement project.
- Piloted a printer refresh program. Over the next year, all printers, photocopiers and fax machines will be refreshed using multi functional imaging devices.
- Developed a Video Conferencing service for the desktop managed environment.
- Implemented a Security Event Management system which identifies network security policy violations or signs of malicious network attacks.
- Implemented the EmerGeo software for the Emergency Measures Organization. This software enhances Manitoba's capacity to respond during floods and other emergency and disaster events.
- Transitioned the Vital Statistics application to a new infrastructure technology which includes full operational support.

18-4(a) Manitoba Information and Communication Technologies

Expenditures by Sub-Appropriation	Actual 2008/09 \$	FTE	Estimate 2008/09 \$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	16,597	195.72	17,290	(693)	
Total Other Expenditures	61,208		60,066	1,142	1
Total Expenditures	77,805	195.72	77,356	449	

1. Increase of desktop seats and all associated costs.

18-4(b) ICT Services Manitoba Recovery

Expenditures by Sub-Appropriation	Actual 2008/09 \$	FTE	Estimate 2008/09 \$	Variance Over (Under)	Expl. No.
Total Less: Recoverable from other Appropriations	(50,616)		(49,533)	(1,083)	
Total Expenditures	(50,616)		(49,533)	(1,083)	

LEGISLATIVE BUILDING INFORMATION SYSTEMS

OBJECTIVES

To provide highly responsive ICT support services that address the business requirements of clients in the Legislative Building; Government, Legislative Assembly and Caucuses, by deploying and maintaining reliable systems in a secure technological environment.

ACTIVITIES/RESULTS

2008/09 Activities included:

- Direction and planning for information technology initiatives in the Legislative Building; Including providing consultation to Caucus groups and Legislative Assembly.
- Development and implementation of security strategies that monitor intrusions, detect viruses and enable recovery from disasters;
- Provision of desktop management services including help desk support, requirements analysis, purchasing and asset management;
- Management of server and communications infrastructure;
- Analysis, implementation and support of business applications; and
- Provision of consultative and project management services on in-house or outsourced requests.

In addition to provision of operational services major accomplishments for 2008/09 include:

- Performed email migrations for Caucus groups which included upgrade to; Exchange 2007 and Blackberry Enterprise Server V4.1.
- Implemented a virtual server solution for application development and test environments, thereby consolidating servers and minimizing associated hardware costs.
- Provided Treasury Division with consulting, technical, and project management services in support of various specialty applications. Currently in process of upgrading to a new web-based service, Treasura, which will provide market to market financial credit exposure and manage Debt Investments, Derivatives and Foreign Exchange.
- Expanded capability of the Media Streaming service to include remote locations for News Conferences and Media Events.
- Implemented upgrades and enhancements to the corporate web-based Activity & Issues Management System (AIMS); ongoing performance tuning of the application and database.
- Consolidated custom applications onto a shared relational database platform.
- Created/enhancements to various custom applications, including Witness application; Health Intake System, Case Management System and the Untendered Contracts application.
- Upgraded patch management system to latest release which now allows for automation of Office Suite upgrades for desktops.
- Migrated Legislative Building clients over to new Internet Proxy service.
- Migration of desktops to newer hardware with the most current office automation software as part of an on-going refresh cycle;
- Completed third year of a four year server refresh cycle with emphasis on consolidation of services. This included a refresh of all server hardware and a migration to the latest server and network operating systems;
- Upgraded all Antivirus\Anti-Spam software at desktop, server and gateway levels;
- Completed third year of a five year project to upgrade network infrastructure. This project is designed to upgrade the building communications infrastructure to increase security and accommodate growing bandwidth needs;
- Continued re-engineering and migration of custom applications to thin client technology;
- Expanded Extranet service to provide connectivity for additional remote Legislative Building offices.
- Provided service for connectivity from remote locations for Traveling Committees.
- Provided setup & support for Internet Café during conference hosted by Legislative Assembly.
- Implemented Content Filtering for Internet Access.

18-4(c) Legislative Building Information Systems

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries & Employee Benefits	886	12.00	954	(68)	
Total Other Expenditures	185		211	(26)	
Total Expenditures	1,071	12.00	1,165	(94)	

SERVICE TRANSFORMATION MANITOBA

Service Transformation Manitoba provides leadership for service delivery activities, operational transformation activities and the SAP implementation across the Government of Manitoba.

OBJECTIVES:

- To improve service delivery by modernizing government through achieving simplicity, developing partnerships, engaging technology, organizational innovation, streamlining and improving business interactions, and performance reporting.
- To provide leadership for improvement of service quality, citizen-centered service delivery and single window initiatives.
- To maximize the potential of the SAP enterprise resource planning tool.
- To facilitate operational transformation through operational reviews, change management, user transition, development of communication plans, training support and end-user role definition and readiness.
- To serve as a link to inter-jurisdictional committees and forums where information and knowledge on service delivery and operational transformation are exchanged.
- To provide support for Committees driving service delivery and operational transformation.

ACTIVITIES/RESULTS:

Activities undertaken in 2008/2009

- Provided a leadership and policy role in influencing direction of the Corporate ICT Services Manitoba organization, government-wide technology and innovation efforts, and service improvement and transformation.
- Continued to support the Service Transformation and Information, Communication, Technologies Executive Coordinating Committee of Deputy Ministers.
- In pursuit of continuous improvement, encouraged innovation from provincial civil servants with the intent of cost savings and/or improving service for Manitobans.
- Continued to promote and support Service Quality Partners (SQP) and the Manitoba Service Excellence Awards (MSEA).
- Conducted employee and departmental surveys for various stakeholders, including citizens' utilization of government services.
- Initiated and coordinated the Online Services to Citizens' initiative.
- Continued to lead the Inter-departmental Task Team overseeing the deployment of new citizen online services.
- Continued to support the Single Window Service to Business initiative that is being led by the Department of Competitiveness, Training and Trade.
- Developed a comprehensive organizational change management framework to assist departments with service transformation activities.
- Began developing a taxonomy of government services to enhance the delivery of services and support performance reporting.
- Developed tools, guidelines and reusable methodologies and practices relating to managing electronic information, identity management and authentication.
- Continued to utilize the tools and methodologies from the Business Transformation Enablement Program with Departments to develop improved services.
- Implemented the Enterprise Resource Planning (ERP) Program Management Office.
- Developed an SAP training strategy to address training needs of SAP end users.
- Developed a learning policy toolkit.

Service Transformation Manitoba reports the following results in 2008/2009:

- Supported Service Quality Partners through various activities such as the Manitoba Service Excellence Awards (MSEA), networking and learning opportunities through the Brown Bag Lunch Program and through learning seminars related to service quality.
- Conducted 40 surveys for departments.
- Continued to support Online Services to Citizens' initiative.
- As part of the Online Services to Citizens' initiative, participated with the launch of the Career Development Portal
- Promoted and utilized the Organizational Change Management Program to assist departments with service transformation activities.
- Using the tools and methods of the Business Transformation Enable Program, worked with Departments on transformation initiatives.
- Continued to develop tools, guidelines and reusable methodologies and practices relating to managing electronic information, and to provide advice and guidance to government departments.
- Continued to provide support to and participate in the Information Management Round Table in guiding the development and implementation of the Information Management Framework.
- Participated in inter-jurisdictional committee work, including Pan-Canadian Identity Management and Authentication (IdM&A) framework development, through participation on the IdM&A working groups and the Identity Management Steering Committee (IMSC).
- Initiated and supported a variety of SAP related projects through the Enterprise Resource Planning (ERP) Program Management Office.
- Revised the SAP 1/3/5 year roadmap.
- Implemented the Learning Policy and supporting tool through departmental Learning Plan.

18-4(d) Service Transformation Manitoba

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries & Employee Benefits	1,320	15.00	1,259	61	
Total Other Expenditures	793		918	(125)	
Total Expenditures	2,113	15.00	2,177	(64)	

MINERAL RESOURCES

MANITOBA GEOLOGICAL SURVEY

OBJECTIVES

The **Manitoba Geological Survey** (MGS) provides geoscience information to support and facilitate mineral and petroleum exploration in the province, and also conducts a broad range of geoscience activities that address land-use and environmental issues facing Manitobans.

Program objectives:

1. To increase the geoscientific knowledge base of the Province, primarily by conducting field studies and systematic bedrock and surficial mapping
2. To increase the effectiveness of mineral and petroleum exploration activities in both established resource areas and in frontier areas through relevant geoscientific projects
3. To promote effective land use and resource management
4. To evaluate environmental impacts and geohazards
5. To develop products that respond to clients' increasing needs for digital information
6. To maximize the range and impact of geoscience investigations through collaboration with industry, Federal, university and other Provincial agencies
7. To provide minerals industry information to communities, aboriginal people, and the public at large, through outreach activities

The **Minerals Policy and Business Development** section of MGS is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities, administration of Manitoba's mineral exploration incentive programs and organizing and staging of the annual Mining and Minerals Convention. The section also helps facilitate the provision of community adjustment services to communities facing mine closure. To achieve these goals, the Minerals Policy and Business Development section works closely with the Manitoba Geological Survey and the Mines Branch of Science, Technology, Energy and Mines, as well as all affected government departments.

ACTIVITIES/RESULTS

GEOSCIENCE PROGRAM

In 2008-09 the MGS continued multiyear programs in the Paleoproterozoic Flin Flon Belt, the eastern Kiseeynew Domain and the Thompson Nickel Belt (TNB). Phanerozoic investigations focused on a study of the Devonian Three Forks Formation, investigation of shallow unconventional shale gas prospects, and the completion of products from the Williston Basin Targeted Geoscience Initiative.

The MGS initiated new field projects in

1. the Far North, in the Great Island Domain;
2. Snow Lake (gold metallogeny);
3. Paint Lake on the eastern margin of the Thompson Nickel Belt (TNB); and
4. Southern Indian Lake, as a contribution to the Targeted Geoscience Initiative.

The program is reviewed annually by the Mineral Exploration Liaison Committee (MELC), composed of members of the Mining Association of Manitoba, the Manitoba Prospectors and Developers Association and the Manitoba-Saskatchewan Prospectors and Developers Association, as well as representatives from the universities of Manitoba and Brandon, and the Geological Survey of Canada (GSC).

Activities and results for 2008-09 are listed below as they pertain to overall Program objectives.

1. Increasing Manitoba's geoscience knowledge base

As in previous years, a significant portion of MGS work in 2008 was conducted as part of the Targeted Geoscience Initiative (TGI). This initiative provides a vehicle to partner with the Geological Survey of Canada (GSC) on priority projects aimed at improving the economic sustainability of mining towns in northern Manitoba. The TGI-3 Flin Flon project is an integrated, multidisciplinary geoscience study to aid in the discovery of new reserves of base metals in established mining communities of west-central Manitoba and east-central Saskatchewan. The project has been developed through joint provincial-federal-industry consultation and is delivered as a fully integrated partnership that includes the minerals industry, researchers from Canadian and American universities, and geologists from the MGS, the Saskatchewan Geological Survey (SGS) and the GSC.

Flin Flon TGI-3 activities in 2008-09 included:

- Geological Survey of Canada researchers, together with Laurentian University researchers, continued detailed mapping in the footwall and hangingwall rocks of the Flin Flon, Callinan and Triple 7 deposits. This work has been facilitated through excellent co-operation and collaboration with the exploration staff of HudBay Minerals Inc.
- A two-year research project to characterize and describe the Schist Lake-Mandy Road volcanogenic massive sulphide deposits and their host rocks was continued in 2008 by a Laurentian University M.Sc. student.
- Fieldwork conducted at South Indian Lake was the first in a multiyear MGS project whose primary focus is to map supracrustal rocks along the northeastern extent of the Churchill River system in the South Indian Lake area.
- Work conducted by MGS and GSC in recent years has delineated lithotectonic assemblages on the margins of the Kiseynew Domain. Areas examined in 2008 to better define such units were at Granville and Notigi lakes on the northern flank of the Kiseynew Domain and near Sherridon on the southern flank.
- Mapping continued in 2008 at Notigi Lake, on the northern flank of the Kiseynew Domain northwest of Thompson.
- The final 1:10 000 compilation map of Flin Flon geology is nearing completion, with release anticipated for May 2009.

Geochronological results, acquired from a protoquartzite at Saw Lake, 40 km east of Snow Lake, shed new light on the origin and mineral potential of the region.

Geological mapping was undertaken on west-central Paint Lake in 2008, to improve our understanding of the Archean basement of the Thompson Nickel Belt. The recognition of an Archean metasedimentary sequence on Paint Lake, with lithologic similarities to the ore-hosting but Paleoproterozoic-age Ospegwan Group metasedimentary rocks of the TNB, presents an additional complicating factor in an area already made challenging for mineral exploration by the intense deformation and high metamorphic grades.

Geological mapping of the Neoproterozoic Bird River greenstone belt of southeastern Manitoba, initiated by the MGS in 2005, was finalized by completion of coverage in the southwestern part of the belt in 2008. Detailed, 1:20 000 scale mapping and concurrent geochemical investigations have resulted in a new stratigraphic framework and revised interpretation of the crustal setting of the supracrustal rocks.

A detailed reinvestigation of alkaline igneous rocks from the southwestern part of Cinder Lake (Gods Lake Domain) was initiated as a joint project between the MGS and the Department of Geological Sciences, University of Manitoba.

In 2008, the Manitoba Geological Survey completed two weeks of reconnaissance bedrock mapping and sampling in the Great Island Domain at the southeastern margin of the Hearne craton in Manitoba's Far North. This work focused mainly on metavolcanic and metasedimentary rocks along the lower Seal and North Knife rivers, and included the collection of representative bedrock samples of all major rock types previously identified in the Great Island Domain. This work was conducted in preparation for a more concerted mapping program planned for the 2009 field season as part of the Manitoba Geological Survey's Far North mapping initiative.

2. Increasing the effectiveness of mineral and petroleum exploration activities

A project in the Sherridon area was started in 2008, conducted by Laurentian University researchers. Alteration, lithogeochemical, geochronological and metamorphic studies will constrain the environment in which volcanogenic massive sulphide deposits of the Sherridon structure formed and will elucidate the metamorphic evolution of the structure.

Field work began in 2008 on a new MGS study of gold mineralization in the Snow Lake area. A more complete understanding of the relationship between gold mineralization and the tectonometamorphic history of the Snow Lake area will provide important constraints on gold exploration and development.

The Williston Basin TGI Project, a multijurisdictional program focused on mapping the entire stratigraphy from the top of the Precambrian to the uppermost subsurface-mappable Cretaceous, continued to publish final products. All publications are available for free download from www.WillistonTGI.com. Key components of the Williston Basin TGI project in 2008 include the release of the formation-tops database and the final stratigraphic map series.

The Devonian Three Forks Formation project is in its second year of study, expanding the core and drill cuttings logging over the entire Three Forks depositional area in Manitoba, examining producing pools outside the Sinclair Field, and evaluating the potential of less-explored areas.

A shallow unconventional shale gas project is in its first year of a four-year investigation of the shale gas potential in Manitoba's Mesozoic shale sequences, particularly the Ashville, Favel, Carlile and Pierre formations. Historical and new gas shows will be mapped, and geochemistry and mineralogical analysis will be conducted on samples from these horizons.

In 2008, MGS undertook work to document the chemostratigraphic signature of Upper Cretaceous shale sequences in the hope that this would lead to discovery of the provenance of the contained shallow unconventional shale gas. The purpose of acquiring geochemical data for Upper Cretaceous rocks is to provide a complete package of information useful to companies considering exploration in the unconventional shallow gas plays in southwestern Manitoba.

3. Promoting effective land use and resource management

The rural municipalities of Dauphin, Ethelbert, Gilbert Plains, Grandview and Mossey River were mapped in 2008 as part of an ongoing project to update a 30-year old regional aggregate inventory. A pit inventory program resulted in updated information on aggregate resources for the five municipalities.

4. Evaluation of environmental impacts and geohazards

University of Manitoba researchers continued with a program investigating the revegetation of mine tailings at the Gunnar mine in southeast Manitoba.

5. Development of products that respond to clients' increasing needs for digital information

In 2008–2009, MGS published the annual Report of Activities, one geoscientific report, two geoscientific papers, three open file reports, 16 open file maps, 1 geoscientific maps, 6 preliminary maps, Williston Basin stratigraphic maps and 4 data repository items. To meet client needs, MGS continued to offer the majority of the publications in hard copy, on CD-ROM or DVD for purchase through Publication Sales, and in electronic format for free download via the Web.

The new digital mineral deposits and occurrences database for Manitoba has been completed. This first edition was released in November 2008 and is accessed through the GIS Map Gallery. The newly designed database summarizes all of the information contained in the reports of the Mineral Deposit Series. Work has started on the second phase, with the addition of recently released nonconfidential work that has been performed on specific properties.

The production of a seamless 1:250 000 scale digital geological base map for Manitoba is nearing completion. The entire Precambrian compilation is complete and a new legend structure has been designed and implemented.

The geophysical dataset compilation project involves geophysical data in the nonconfidential assessment files. The project has focused on expanding the number of datasets and converting the data presentations to standard format, with particular emphasis on converting data to standard projection and datum. These data presentations are available for download from the GIS Map Gallery.

6. Collaboration with industry, Federal, university and other provincial agencies

In 2008–09 MGS participated actively in a number of interdepartmental initiatives, including:

1. Protected Areas Initiative (Conservation), as a partner in the Mining Sector Consultation.
2. Watershed planning initiatives (Water Stewardship), through the provision of surficial geology and aggregate data and interpretation.
3. Groundwater initiatives (Water Stewardship).
4. Aggregate resource assessments (Transportation), for aggregate resource assessments in Manitoba rural municipalities.
5. Aboriginal Consultation Interdepartmental Working Group, assisting in the development of a Consultation policy for the Province.
6. WNO Interdepartmental Working Group, providing mineral exploration and mining information for the east side of Lake Winnipeg.

The Government of Canada is investing \$100 million over five years in its new Geomapping for Energy and Minerals (GEM) initiative. GEM will focus mainly on northern Canada (north of 60° latitude) and will use modern geological methods and standards to identify the potential for energy and mineral resources. At least 75% of the federal funds will be allocated for public geoscience in the North, and up to 25% in the provinces, the latter on a cost-shared basis. Manitoba and Canada completed planning for a GEM project in Manitoba's Far North in June 2008. The MGS initiated fieldwork in the region in July 2008 as the reconnaissance phase of a two-year, intensive, field-based program starting in 2009. The Geological Survey of Canada meanwhile funded an airborne radiometric and magnetic survey in an area that will be the focus for coming fieldwork.

The Manitoba Geological Survey was active in 2008 on a number of international collaborative projects including:

1. The 3-D geological model for southern Manitoba, which will be expanded in a cross-border initiative with Minnesota and North Dakota. This initiative will unite disparate datasets and put them into a single standardized nomenclature, assisting in groundwater management on both sides of the Canada–United States border.

2. The North American Soil Geochemical Landscapes Project, which will provide continent-wide background soil geochemical data relevant to a variety of applications. The project will provide insight into the relationships between soil geochemistry, the environment and human health, as well as provide a framework and protocols for wide-scale geoscientific surveying of soils for health and environmental purposes.
3. OneGeology, an international initiative of the geological surveys of the world and a flagship project of the 'International Year of Planet Earth'. Its aim is to create dynamic geological map data of the world, available via the Internet, to provide greater accessibility of geological map data worldwide.

7. Providing minerals industry information through outreach activities

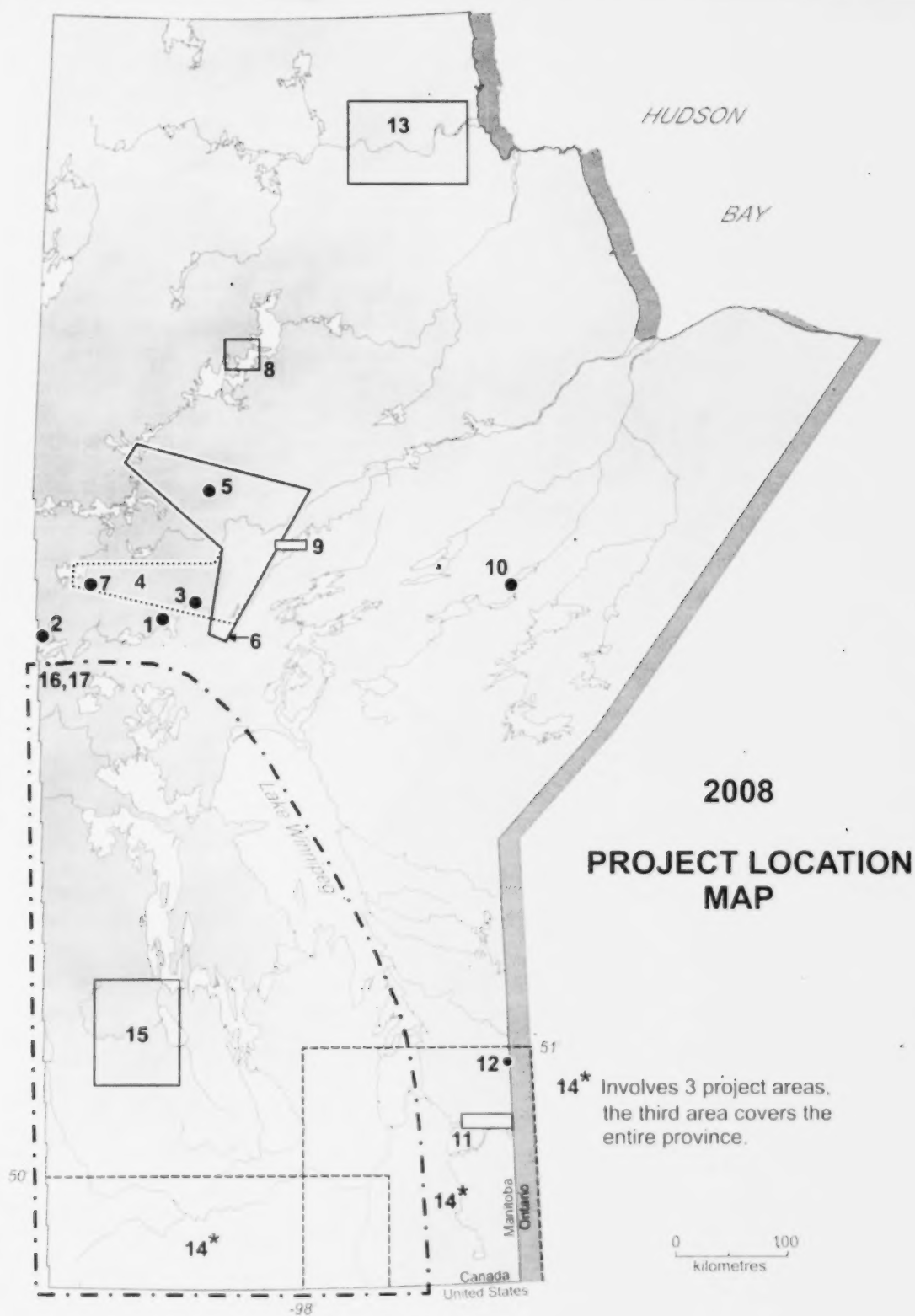
New Web content published by MGS in 2008–2009 included:

1. the Exploration Activity Tracker site, which provides the tools to quickly and easily track mineral exploration projects and mining activity in Manitoba;
2. the 'Stratigraphic Map Series' page, featuring digital maps produced under this series, including 30 maps released on CD-ROM in 1998 as part of Open File Report OF98-7, and 98 maps from the Williston Basin TGI 2 Project; all maps are available for free download from the new page;
3. 'Manitoba Mining Thru the Centuries', developed by the MGS Mineral Resources Library, which presents a chronology of Manitoba's mining history; a clickable timeline or mine location map lists mining operations, companies and commodities mined, and a photo gallery offers a visual history.

Manitoba Geological Survey mineral-education outreach initiatives included the 'Manitoba Rocks!' program, which was delivered at the Manitoba Mining and Minerals Convention, Children's Hospital, Children's Museum and during Provincial Mining Week. 'Manitoba Rocks!' offers free, hands-on activities developed to complement the Earth-sciences curriculum and increase public awareness of the importance of Manitoba's mineral resources and mining industry.

Other events in 2008-09 in which MGS staff were involved include:

- the 4th Annual Aboriginal Mining Workshop, held as part of the 2008 Manitoba Mining and Minerals Convention.
- the 3rd Annual Learning Together Conference (LTC) in April 2008.
- the two-day Mine Environment Neutral Drainage (MEND) Workshop on 'Challenges in Acidic Drainage for Operating, Closed or Abandoned Mines', held in June 2008.
- the Cross Lake Mining Conference, 'Building Relationships and Creating Partnerships between First Nations and the Mining Industry', held in July 2008.
- mining and geology presentations to Aboriginal communities at Nelson House First Nation, at Granville Lake and at Wolseley School in Winnipeg. In addition, staff attended Aboriginal conferences, such as Vision Quest, and the Canadian Aboriginal Minerals Association Conference.



Map Legend**Location of Projects 2008/2009**

- 1 Structural geology and gold metallogenesis of the New Britannia mine area, Snow Lake
- 2 Geology and geochemistry of the Schist Lake mine area, Flin Flon
- 3 Detrital zircon provenance of the Snow Lake protoquartzite, east end of the exposed Flin Flon Domain
- 4 Correlation of lithological assemblages flanking the Kiseynew Domain
- 5 Update on geological investigations of the Notigi Lake area
- 6 Geochemistry of an alkaline, ca 1885 Ma K-feldspar-porphyritic, monzonitic to syenogranitic suite, north eastern Kiseynew Domain
- 7 Hydrothermal alteration and metamorphism of the Sherridon structure, Sherridon area
- 8 Geological investigations of the Pukatawakan Bay belt, Southern Indian Lake
- 9 Preliminary results from geological mapping of the west-central Paint Lake area
- 10 Evaluation of the age, extent and composition of the Cinder Lake alkaline intrusive complex, Knee Lake
- 11 Stratigraphic investigations in the Bird River greenstone belt
- 12 Natural revegetation of Gunnar minesite
- 13 Far north mapping initiative: reconnaissance bedrock mapping and sampling of the Great Island Domain
- 14 Manitoba Geological Survey contributions to international initiatives: Red River Valley 3-D Geological Model Project, North American Soil Geochemical Landscapes Project and One-Geology
- 15 Aggregate resources in the rural municipalities of Dauphin, Ethelbert, Gilbert Plains, Grandview and Mossey River
- 16 Summary report on petroleum and stratigraphic investigations, southwestern Manitoba
- 17 Geochemistry of Upper Cretaceous shale in southwestern Manitoba: potential reservoir rocks for shallow unconventional shale gas

MINERALS POLICY AND BUSINESS DEVELOPMENT

The Minerals Policy and Business Development section is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities organizing and staging of the annual Mines and Minerals Convention. The section administers the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP), which have been extended through 2011, and the Manitoba Mineral Exploration Tax Credit (MMETC). The section also helps facilitate the provision of community adjustment services to communities facing mine closure. To achieve these goals, the Minerals Policy and Business Development section works closely with the Manitoba Geological Survey and the Mines Branch of Science, Technology, Energy and Mines and all affected government departments.

On a global scale, the mining industry is being severely affected by the economic slowdown that took effect during the final quarter of 2008. The industry's momentum established in 2004 due to increased commodity prices coupled with the ability for junior explorers to raise exploration funds resulted in a significant increase in exploration spending through 2008. Exploration levels in the province continued to increase and Manitoba continues to generate positive news. After gaining international recognition in the 1999 Fraser Institute survey of mining companies as 'one of the best places in the world to invest in exploration and mining', frontier exploration, particularly for gold, copper, zinc, nickel and diamonds, has dramatically expanded. Natural Resources Canada reports that off-site mineral exploration expenditures have increased from under \$20 million in 1999 to \$141.5 million in 2008. Exploration spending in 2009 is forecast to decline due to difficulties in acquiring project financing, the result of the global economic decline.

Even though the global economy is in decline, major investments continue in support of existing mining operations. Hudson Bay Mining and Smelting and Vale Inco Limited continue investments to ensure their operations remain in Manitoba until at least 2016. Hudson Bay continues to advance its Lalor Lake zinc-gold discovery and Crowflight Minerals advanced their Bucko Mine project through finalization of mine construction as they approach commercial nickel production.

The section continued to build relationships with exploration and mining companies by promoting the advantages of investing in Manitoba. The benefits of these relationships are not always realized immediately. Mineral exploration and mine development are long-term endeavours with inherent risks. Over the years, however, all Manitobans have benefited from a healthy minerals sector that has grown to be the second largest primary resource industry in Manitoba, with a value of over \$2.5 billion in 2008.

The responsibilities of the Minerals Policy and Business Development section are implemented on a wide variety of fronts that include strategic business development including minerals policy, focussed client service, mining community development and administration of the minerals incentives programs.

Strategic Business Development - To effectively promote Manitoba's mineral investment advantages, it is important to understand industry trends and needs. Where possible, it is also necessary to contribute to the policies and initiatives that can impact mineral investment in a positive and sustainable way. Section representatives participated on various committees such as the Manitoba Mining Tax Committee, Intergovernmental Working Group subcommittees on exploration tax credits, resource tax reform and aboriginal participation in mining, and the Protected Areas Mineral Liaison Committee.

Competition for the exploration dollar has become international in scope and if we are to maintain a healthy and sustainable mining industry in the province it is critical to elevate the profile of Manitoba's mineral endowment and positive business environment. Section personnel conducted focused marketing initiatives and attended major industry conferences to attract exploration dollars to the province. The impact of Manitoba's policy climate in attracting mineral investment was recognized again in the 2008 Fraser Institute survey of mining companies, in which the province placed in the top 8 in the world amongst mining jurisdictions for having a policy environment that encourages mining investment. Survey results represent the opinions of exploration managers in mining companies operating around the world.

In addition, the Department worked collaboratively with local prospectors groups and Manitoba's mining communities to promote mineral and business opportunities in and around those communities through a Team Manitoba approach.

Conventions and Trade Shows - Investment opportunities were promoted through trade show displays and direct marketing efforts at the following major mining and exploration events:

- Prospectors and Developers Association of Canada (PDAC) - Toronto (18,000 in attendance)
- Mineral Exploration Roundup - Vancouver (5,800 in attendance)

Team Manitoba - a collaborative effort between Manitoba's mining communities, mineral property holders and staff from Science, Technology, Energy and Mines, was also successful in promoting mineral investment. Working together, the Team, including mayors from Manitoba's mining communities, provided a unified front to potential investors at the Prospectors and Developers Association of Canada Conference and at the Manitoba Mining and Minerals Convention.

Client Service - Minerals Policy and Business Development, in co-operation with other Branches and government departments, provided advice and direction to help new mining and exploration companies adjust to operating in a new jurisdiction or existing companies embarking on new ventures. This client assistance was provided in both an interdepartmental team approach and through issue driven individual service.

Community Development - activities undertaken by the section include participating in and co-ordinating various initiatives related to mine closure, including facilitating community adjustment and community economic development. The purpose of these activities is to help ameliorate the effects of mine closure on, and contribute to, the long-term viability of mining communities.

The department, with Intergovernmental Affairs, Agriculture and Rural initiatives, and Labour and Immigration took the lead in organizing an interdepartmental working group to deal with mine closure at Lynn Lake and Leaf Rapids. This core group grew into a government Steering Committee that is presently addressing both local and regional issues in the Lynn Lake – Leaf Rapids area, and was involved in the creation of workforce adjustment programs following the mine closure in Snow Lake. The Snow Lake Workforce Adjustment Committee (SLWAC) is cost-shared with Hudson Bay Mining and Smelting and provides outplacement services and workforce transition services for the affected HBMS workers. The SLWAC has successfully assisted 80 workers displaced due to the mine closure. In addition to increased government geological programming in this region, the government is providing funding assistance from the Mining Community Reserve to help each community deal with the effects of mine closure and plan for future economic development.

Manitoba Mining and Minerals Convention - the annual Manitoba Mining and Minerals Convention hosted approximately 1,000 industry participants in 2008. The convention provided a venue for stakeholders to acquire the latest government geological information releases, interact with the exploration and mining services sector and discover new business opportunities. The convention theme, "Manitoba means Business" reflected the mining sector's vibrant presence in Manitoba as well as Manitoba's enormous untapped mineral potential, and the many opportunities that exist for further exploration in our geologically diverse province. In 2008, the convention hosted a total of 66 trade show booths and 33 presentations. In addition, 37 mineral property booths and 28 geological posters were featured, as well as a gold short course and a 3D Workshop at the Industrial Technology Centre. An aboriginal mining workshop was also held in conjunction with the convention. The Manitoba Mining and Minerals Convention 2009 will be held November 19, 20 and 21 at the Winnipeg Convention Centre.

Exploration Incentives - The continuation of mineral incentive programs such as the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP) and the Manitoba Mineral Exploration Tax Credit (MMETC) sends a positive message to industry that Manitoba is serious about attracting investment and supporting industry in times of heightened competition for the global exploration dollar. Budget 2009 contained adjustments to the MMETC, increasing the tax credit to 20% in 2009-2010 with a further increase to 30% in 2010-2011. All programs were administered by the Minerals Policy and Business Development section and reported under 18-5(e).

Crown Consultation - Draft procedures were developed outlining the approach that the Mineral Resources Division will use to carry out the Crown's duty to consult with First Nations, Métis communities and other Aboriginal communities about mineral exploration and mine development projects. The draft procedures were developed with input from the Mining Association of Manitoba and are currently under review by the Assembly of Manitoba Chiefs.

The objectives of these draft procedures are to:

- provide for a consultation process of a nature and scope that is commensurate with the potential level of effect on the exercise of treaty and aboriginal rights;
- clarify the roles of the Department and minerals industry in consultation.; and
- establish a clear, certain, timely, and effective process for communication, information sharing and meaningful consultation with respect to mineral exploration and development.

A copy of the draft procedures are available on the department's website at <http://www.gov.mb.ca/stem/mrd/mines/procedures/index.html>

18-5(a) Manitoba Geological Survey

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	3,494	55.10	3,746	(252)	
Total Other Expenditures	1,691		1,626	65	
Total Expenditures	5,185	55.10	5,372	(187)	

MINES

OBJECTIVES

The Mines Branch administers legislation governing the disposition of mineral rights (permits, claims and leases), exploration, development, production of the province's non-fuel mineral resources and rehabilitation of mines and quarries. The branch comprises three sections; Mining Recording, Mining Engineering and Inspection, and Assessment.

ACTIVITIES/RESULTS

Other activities performed by the Mines Branch staff included the continuing compilation of an inventory of the provinces aggregate resources and administration of provincial land-use policies that deal with the conservation of mineral resources. The Branch continues it's representation on the sub-committee of IGWG on Mine Environment Neutral Drainage (MEND) Committee, the Regulatory Improvement Working Group (RPIWG) and the Federal/Provincial Technical Committee on Mineral Statistics and National Orphaned and Abandoned Mines Initiative (NOAMI). Branch staff participated in a number of technical seminars, conferences and mine rescue competition. Staff are also involved in supporting Aboriginal Consultation for issuance of mineral dispositions and work permits.

Under the Orphan and Abandoned Mine Site Program, the total expenditure for FY 2008/09 was \$6,211,861.45. The rehabilitation work addressed some of the critical safety and environmental issues at the Sherridon, Lynn Lake, God's Lake and Ruttan mine sites and 10 smaller mine sites in the Bissett / West Hawk areas. In accordance with the Mine Closure Regulation, owners/operators of the province's operating and inactive mines submitted closure plans and proposals for review and comments.

Mining Recording Section

Mining Recording offices are located in Winnipeg and Flin Flon.

Mining Recording Offices maintain up-to-date records of mineral dispositions and leases and all legal transactions that relate to mineral dispositions and leases as required by legislation. The general public can access the computer data base on mining claims and permits, quarry leases, quarry surface leases, quarry exploration permits and potash dispositions through terminals located in each of the offices. The Mines Branch is currently in the process of determining the feasibility of online submissions and map staking.

The Mining Recording Section processes applications for mineral dispositions, leases, monitors and inspects the activities of disposition and lease holders for compliance with requirements of The Mines and Minerals Act and Regulations, and collects fees, rentals, royalties, rehabilitation levies, taxes and cash security deposits payable under the Regulations. The total revenue collected by the Section during the fiscal year 2008/09 was \$3,752,586 and the rehabilitation levy collected, including interest, on the removal of aggregate material was \$1,875,574 for the same period.

During the calendar year 2008, 353 mining claims and 29 mineral exploration licenses were recorded covering a total of 632,275 hectares. Concurrently, 61 quarry mineral leases, 777 casual quarry permits and 753 registration certificates for private pits and quarries were also issued during the same period. Details of the types of mineral dispositions and leases issued and in good standing in 2008 are shown on the following page.

The number of quarry exploration permits received by the Mining Recording Office increased significantly at the end of 2008 due to an interest in coal mostly, along and near the Saskatchewan/Manitoba border. Three permits were issued covering an area of 28,864 hectares and another seven are being processed covering 80,846 hectares.

MINERAL DISPOSITIONS ISSUED EACH CALENDAR YEAR 2005 – 2008

	2005		2006		2007		2008	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
Mining								
Mining Claims	458	83,524	738	163,283	963	209,197	353	78,172
Mineral Exploration Licences	68	2,658,314	26	838,968	58	837,967	29	554,103
Mineral Leases	-	-	-	-	-	-	-	-
Quarrying								
Leases	37	1,376	65	2,693	44	7,172	61	2,556
Exploration Permits	4	845	2	225	9	54,514	38	47,729
Casual Quarry Permits	758	-	758	-	763	-	777	-
Peat								
Leases	3	477	2	402	4	556	-	-
Exploration Permits			1	1,243			-	-
Coal							3	30,135
Private Aggregate Registration Certificates	774	-	769	-	934	-	753	-

MINERAL DISPOSITIONS IN GOOD STANDING AT CALENDAR YEAR END 2005 - 2008

	2005		2006		2007		2008	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
Mining								
Mining Claims	5,056	769,800	5,248	802,269	6,005	971,439	6,243	1,622,770
Order-In-Council Leases	3,653	120,562	3,653	120,562	3,653	120,562	3,653	130,562
Mineral Exploration Licenses	152	4,613,743	132	3,810,142	156	2,646,058	107	2,104,812
Mineral leases	254	23,424	253	23,416	253	23,416	253	23,416
Potash								
Leases	1	5,787	1	5,787	1	5,787	1	5,787
Exploration Permits	1	45,212	1	45,212	2	54,514	4	148,726
Quarrying								
Leases	824	38,586	856	40,726	866	46,760	913	49,129
Exploration Permits	4	846	1	525	12	102,447	12	101,210
Peat								
Leases	145	22,243	146	22,683	150	23,238	150	23,238
Exploration Permits	-		1	1,018	1	1,018	1	1,018
Coal							3	30,135
TOTAL	10,090	5,640,203	10,292	4,872,340	11,099	3,995,239	11,340	4,280,803

Mining Engineering and Inspection

The primary purpose of the Mining Engineering and Inspection Section is to facilitate and encourage sound exploration, mining and rehabilitation practices in the province consistent with the principles of sustainable development and in compliance with The Mines and Minerals Act. It also provides land management and advisory services in support of provincial legislative and regulatory land use and resource management initiatives.

Staffs monitor mining activity in Manitoba to ensure compliance with requirements under The Mines and Minerals Act including licenses, registrations, permits, leases, closure plan submissions, royalty/levy charges on production, and environmental operation standards. In 2008/09 inspection staff conducted field inspections to ensure mining compliance at quarry lease and casual quarry permit locations, private pit/quarry operations and site rehabilitation projects.

Orphan Mines Site Rehabilitation Program Environment Liability Account Expenditures 2008/09

Mine Site	Approved Budget (\$)	Expenditure (\$)
Lynn Lake	5,068,000.00	2,014,115.73
Sherridon	6,500,000.00	1,881,164.82
Snow Lake	500,000.00	166,497.96
Gods Lake	2,850,000.00	403,913.08
High Hazard Sites Rehabilitation	1,700,000.00	1,158,845.00
EL Mine Site	1,700,000.00	305,697.12
Ruttan Mine Site		115,545.92
Total	18,318,000.00	6,045,779.63

Significant progress was made under the Orphan/Abandoned Mine Site Rehabilitation Program in 2008/2009.

- Demolition of the Farley Mine Mill Complex and Ruttan Loadout in Lynn Lake was completed.
- Demolition of the El Mine Complex in Lynn Lake was completed. Site investigation is completed and closure plan options are under evaluation. The extensive rehabilitation planned will address safety and environmental issues.
- Site investigation of the God's Lake mine site on Elk Island has started and a rehabilitation plan is presently under development.
- Rehabilitation work continued in East Tailings Management Area in Lynn Lake, with the installation of re-vegetation cover trials, dyke reinforcement and monitoring of passive reactive barrier.
- Sherridon Rehabilitation Plan has been amended due to the results of a geotechnical site investigation. Sherlett Creek Restoration was completed and Sherlett Creek Diversion and temporary dam construction was completed. The hydro power line was relocated in order to address the project needs. All work is in preparation of the tailings relocation and implementation of the remediation plan.
- A refined site investigation has been completed in Snow Lake for implementation of the closure plan.
- An extensive surface and groundwater study was conducted at the Ruttan Mine Site. It was identified that mine water treatment would be required in 3 to 5 years instead of 35 as it was estimated at the time of closure by the owner. Detail engineering and site monitoring is underway in order to address the environmental contamination.
- Site investigation conducted on 3 high hazards sites (Central Manitoba, Dominion and Island Lake Mine (Jack of Diamonds Shaft), identified that the extent of the environmental contamination is significant.
- Three more high hazard orphan/abandoned mine sites (Le Vasseur Shaft, Sherlett Cheek Mine, Lithium Corporation (Cat Lake Mine)) were completed.

The work completed and information gathered under the program over the last three years has been used to develop the work plan under which rehabilitation of all orphan/abandoned mine sites will be substantially complete by the end of 2011/2012. As long term rehabilitation plans for the highly contaminated mine sites (Lynn Lake, Sherridon, Snow Lake, Gods Lake and Ruttan) are implemented. The environmental liability fund estimates were reviewed and updated to reflect estimates based on the engineering work and inspections that have been completed.

General

Mines Branch staff participated on various interdepartmental technical review committees. Staff took part in judging the Provincial Mine Rescue Competition in Thompson.

Several mine closure plans for operating metal mines, inactive mines and for industrial mineral quarries were reviewed by Mines Branch staff and the closure plans were approved by the Director of Mines.

The Mines and Minerals Act, proclaimed in 1992, introduced a program to address the rehabilitation of pits and aggregate quarries in the province. Aggregate producers pay an annual levy based on the tonnes that they've produced and this money is set aside in a fund to be used for pit and quarry rehabilitation. On the basis of aggregate production from private and Crown lands in fiscal year 2008/09 approximately \$1.7 million was contributed to this Quarry Rehabilitation Fund, with over 118 rehabilitation projects being completed at a cost of \$2.2 million. The total number of projects completed since 1992 comprise approximately 7,606 hectares of land rehabilitated. All the work has been undertaken through private equipment rental agreements or tendered contracts with private operators, administered and monitored by branch inspection staff.

Sustainable Land Planning Services

Manitoba has enacted several resource management acts to manage land and natural resources as well as improve the economy and protect the environment. The mineral resource/land management program facilitates mineral resource and land stewardship in the various provincial and municipal land and resource use management planning processes. Program objectives for resource stewardship are to help facilitate the provincial interest in natural resources, manage land, and accommodate environmental management. Program goals are directed at facilitating responsible mining and resource development, protecting the environment, minimizing land and resource use conflicts and providing high quality land and resource management planning and advisory services to planning authorities, industry and other land management stakeholders.

Program goals also include providing secretarial support to the Surface Rights Board and assisting Manitoba in the transition to sustainability. The implementation of the program is as follows:

Crown Land Planning

The management, classifying and policy development for Crown land in Agro-Manitoba is the responsibility of the Bloc Planning Committees. Major activities of the Crown land management process include developing and implementing Crown land plans, developing Crown land use codes and policy and supervising land use on Crown lands through an integrated management process. Other significant land management activities include evaluating Crown land sale and use proposals, providing technical advice and information on resource management activities and facilitating land designation under various resource management acts. Land management provides planning services related to:

- Crown land sales
- Crown land exchanges
- Crown land planning and development
- allocation of use
- integration of use
- protection, conservation and sustainability of provincial natural resources.

All land sales, exchanges, land use codes and other administrative requirements for Crown land planning and management are reviewed and commented on by Land Management.

Municipal Planning

The Planning Act governs land use planning and development in Manitoba. The legislation provides municipalities and planning districts with the authority to create and adopt a Development Plan and Zoning By-law. Land management is actively involved in providing the legislatively based land planning processes and stakeholders with technical products, advice and technical positions on land planning matters. Support services include reviewing policy and development proposals and ensuring that the province's non-renewable mineral resources are not sterilized by development, preparing mineral resource management technical reports and maps that help facilitate mineral resource management, and providing professional planning advisory assistance to the subdivision review and conditional use processes. Other significant planning services include policy reviews of plans and zoning by-laws, public consultation and supporting planning appeal Boards. Land Management is responsible for the interpretation and application of Provincial Land Use Policy #9, MR 184/94. The Provincial Land Use Policy for minerals is currently being revised to strengthen its intent and provide clarity concerning protecting mineral resources. The regulation has recently been vetted through Interdepartmental Review Committee and is currently undergoing a public stakeholder consultation process.

Sustainable Land Planning Services

	2007	2008
Reviews of new Development Plans and by-law amendments to ensure that mineral resources are not sterilized	118	100
Municipal Boundary reviews including annexation or expansion	2	2
Review of new zoning by-laws and amendments	207	201
Review of closure of roads and public reserves	40	48
Review of conditional use applications for the establishment of mining operations	14	8
Review of proposed live stock operations	18	12
Provide land planning services to 44 planning districts and 144 municipalities		

Land Use Assessment

Land Management provides technical support and advice to many and use review and assessment processes. Land use proposals are assessed to ensure that the province's mineral resources are not sterilized by development and to ensure that land use conflicts are identified and mitigated. Land use proposals that are assessed are subdivision applications, Crown land sales, zoning and policy memorandum as well as Crown surface encumbrances with the view of documenting land use, tenure and environmental conflicts. This activity directly supports interdepartmental and intergovernmental planning and resource management activities. A total of 1746 land use proposals were assessed for potential land use conflicts to ensure that the Province's mineral resources were not sterilized by surface development. A new policy and procedure and related process was created and implemented for mineral access rights. In addition, Land Management has partnered with development proponents in large complex surface, mineral and sand and gravel rights ownership to document and interpret various tenures and to help resolve ownership concerns including Agrium and San Gold Corporation.

Sustainability

The Sustainable Development Act was proclaimed on July 1, 1998. The Act creates a legal framework through which sustainable development will be implemented in the public sector and encouraged in private industry and society. An implementation process has been recently initiated and approved by Manitoba, and land management is currently providing technical support to many different provincial working groups and processes. Technical support is provided to COSDI, Codes of Practice, sustainability reporting, and financial management. Other important initiatives include sectoral strategies under the provincial land and water initiative. Land Management also provides technical support to the Sustainable Development Innovations Fund by reviewing technical reports and participating in the approving committee. The principles of sustainable development are being codified into Municipal Plans, Crown Land plans and Zoning By-laws. The sustainability indicators report for mining areas prepared in the calendar year.

Protected Areas Initiative

Manitoba has initiated a program to protect representative landscapes and ecosystems from logging, mining and hydro development. Currently, 8.3% of Manitoba is legally protected from mining development with an additional 5.7% supported for protection by the mining sector. Mines Branch plays an important technical role in the process by legally withdrawing Crown mining rights from mineral exploration, development and extraction to protect critical habitat from mining activities. It also provides land tenure information and other support to the stakeholder approval process. A new policy and process for protecting Rank 1 Crown mineral rights from exploration and development was implemented. The intent is to provide comprehensive legal security to the protected lands and ensure that they are protected until the stakeholder consultation process is completed.

Treaty Land Entitlement

Progress was made towards meeting provincial obligations for Treaty Land Entitlement, Northern Flood Agreement and Grand Rapids Forebay Agreement in accordance with these legal agreement requirements. Land selections containing valid mineral dispositions in good standing were documented and technical support to the selection process was provided. Staff participated in resolving tenure conflicts associated with land selections and also provided procedural and policy advice. Two selection sites were ratified covering a total of 52.03 acres.

Public Outreach

Land Management also provide educational and outreach services facilitating sustainability, mineral resource management to various land management boards, municipal councils, industry and the public. Public outreach services include presentations, workshops, and internet access to land management issues, policies, practices to ensure that there is an opportunity for public involvement and discussion regarding resource management issues. Activities include oral and poster presentations at conferences, workshops, public meetings and direct stakeholder consultations concerning mineral resource management. This activity helps facilitate informed decision making by land management boards, industry, and the public. Highlights for 2008 include providing public outreach to Manitoba's cottage lot program, assisting Manitoba prospectors in land tenure issues, and providing technical support to Watershed Management Boards. This year special emphasis has been placed on conducting workshops on land planning and mineral tenure with stakeholders.

Assessment Section

The Section receives and evaluates reports of required work submitted under The Mines and Minerals Act to ensure compliance with legislation and acceptable industry standards. At first confidential, these reports are eventually transferred to the non-confidential assessment library open to the public. These reports are indexed, microfilmed and scanned. Clients can view reports in our office or on the website.

Copies can be obtained by printing them directly from the website or ordering them from the Assessment Library. These reports are available on line, on paper, microfilm or compact disc.

The Section also provides advice to the Review Panel and Administrator of the Mineral Exploration Assistance Program on the merits and validity of the projects, acceptance of final reports and recommendations on payment or non-payment of grants.

The Section monitors mining exploration activities in the province and contributes to the preparation of reports on industry activity. It also acts as liaison between Natural Resources Canada and the mining industry for the gathering of statistics on exploration and production.

At the request of the Manitoba Securities Commission, the section reviews technical submissions on mining projects to ensure that they conform with the reporting standards set out in National Instrument 43-101 - Standards of Disclosure for Mineral Projects. Four projects were reviewed during the past year.

	2005	2006	2007	2008
Reports of work added to assessment library	133	110	99	150
Reports transferred to non-confidential status	2755	67	106	124
PRIVATE SECTOR:				
Visits	130	108	139	42
Reports examined	652	552	635	240
Reports duplicated for clients	282	268	310	181
CD'S duplicated for clients	43	30	45	23
DEPARTMENTAL STAFF:				
Reports examined	258	301	147	133
Microfiche created/duplicated for Winnipeg and Northern Offices	2,157	879	469	379

18-5(b) Mines

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries and Employee Benefits	1,413	26.00	1,330	83	
Total Other Expenditures	663		635	28	
Total Expenditures	2,076	26.00	1,965	111	

PETROLEUM

OBJECTIVE

To provide for and encourage the safe and efficient development of Manitoba's oil and gas resources in accordance with the principles of sustainable development.

ACTIVITIES/RESULTS

Manitoba's oil and gas sector, though small by national or international standards, is a significant component of the provincial economy particularly in the South Western part of the province.

In 2008, Manitoba produced 1,368,950.4 cubic metres of oil (8.62 million barrels) having a total value of approximately \$831 million. This is equivalent to about 35 percent of the province's refined petroleum products needs. Since there are no refineries in Manitoba, all of the province's production is exported through the Enbridge pipeline system to refiners in Ontario and the US.

In 2008, the petroleum industry spent \$320 million in Manitoba to explore for and develop Manitoba's oil and gas resources, to operate over 3000 wells and transport crude oil and refined petroleum products within the province.

The Sinclair Field located 35 km Southwest of Virden continued to be expanded. As of December 31, 2008 the field has over 880 producing oil wells. In 2008, Sinclair contributed 43% of the total provincial production.

It is estimated that the petroleum industry in Manitoba provides direct and indirect employment for approximately 1550 Manitobans.

In 2008/09, royalties, production taxes and revenue from the administration of Crown owned oil and gas rights and fees added \$27.3 million to the Provincial Treasury. Significant revenues were also collected by the province through income taxes, retail sales tax, corporation capital tax, payroll tax and fuel taxes. In addition, the industry paid approximately \$3.0 million in property taxes to the various municipalities where oil wells and facilities are located.

The Petroleum Branch administers The Oil and Gas Act and related regulations governing the exploration, development, production, transportation and storage of crude oil and natural gas. The branch is also responsible for The Oil and Gas Production Tax Act. Additionally, officers and inspectors of the branch are designated as Workplace Safety and Health Officers under The Workplace Safety and Health Act with respect to oilfield operations. The inspectors also act as industry's first point of contact with regard to oil field related environmental issues.

In December 2008, the Manitoba Drilling and Incentive program, which is designed to encourage the sustainable development of Manitoba's oil and gas industry, was extended for five years until January 1, 2014.

In 2008, oil companies reported 56 spills. More information on spills is presented in the Petroleum Industry 2008 Spill Statistics and Report available from the branch.

The branch continued maintenance of its GIS Web-enabled Petroleum Resources map. The map covers South Western Manitoba including Townships 1-22; Ranges 19-29 W1 and shows provincial Crown oil and gas rights mineral ownership, Crown oil and gas dispositions, wells, oil and gas facilities, field boundaries, topography orthophotos and allows for download of the branch's technical well files. The map is available on the Petroleum website at (www.gov.mb.ca/stem/petroleum).

Tundra Oil & Gas Partnership received approval to initiate a CO2 enhanced oil recovery project in the Sinclair Oil Field. A first for Manitoba, the project is designed to investigate the use of CO2 sequestration in Manitoba's oil fields to increase oil production. Annually, 10,950 tonnes of CO2 is being supplied by Praxair from the Koch fertilizer plant located in Brandon. STEM has also contracted an engineering study to further investigate the use of CO2 in Manitoba's oil fields and will be creating a CO2 enhanced oil recovery strategy based upon recommendations in the study.

The branch participated in the following consultation and outreach activities during 2007/08:

- the 16th International Williston Basin Petroleum Conference, April 27 – April 29, 2008 in Minot, North Dakota.. The branch presented an update of Manitoba oil and gas exploration and development activity at this forum and met with industry clients.
- The Canadian Association of Petroleum Geologists annual convention, May 13-17, 2008 in Calgary, Alberta.

The following Informational Notices were issued by the Petroleum Branch in 2008:

- Informational Notice 08-1 – Schedule of Public Offering of Manitoba Crown Oil and Gas Rights – April 14, 2008;
- Informational Notice 08-3 – Mandatory Electronic Data Submissions – July 25, 2008;
- Informational Notice 08-4 – Abandonment Fund Reserve Account for Fiscal Year ending March 31, 2007 – July 30, 2008;
- Informational Notice 08-5 – Core and Drill Cuttings Sampling , Examination and Analysis – Oct 17, 2008;
- Informational Notice 08-6 – Mandatory Digital Survey Submission Requirements for LSD Survey Grid – November 23, 2008;
- Informational Notice 08-7 – Manitoba Drilling Incentive Program – December 12, 2008.

Administration and Geology Section

Administration:

Administration is responsible for collection of petroleum-revenues and administration of Crown owned oil and gas rights. The section collects annual lease rentals, Crown oil royalties and freehold oil taxes, conducts sales of Crown oil and gas leases and exploration reservations and processes lease renewals and extensions. The section is responsible for administering provisions of the Crown Disposition Regulation, the Crown Royalty and Incentives Regulation, the Oil and Gas Lease Agents Regulation and portions of the Drilling and Production Regulation under The Oil and Gas Act. The section also administers The Oil and Gas Production Tax Act and Regulation.

Crown Oil and Gas Rights - Four Crown oil and gas lease sales were held in 2008/09. One hundred and sixty one leases covering 16,329 hectares were sold for a total of revenue of \$5,249,000.00. Revenue collected from Crown oil and gas lease sales was up substantially from the 2007/08 revenue of \$583,000.00.

Since 1979, the province has collected over \$44.9 million from the disposition of Crown Oil and Gas Rights. As of December 31, 2008, 127,237 hectares of Crown Oil and Gas Rights were under disposition. Crown leases account for all lands under disposition. There are currently no exploration reservations. Compared to 2007, the total area under disposition increased by 1.06%.

In 2008, the section processed 36 lease renewals and 19 lease extensions, 36 lease surrenders, 29 transfers of dispositions and 19 oil and gas lease agent renewals and registrations. It also issued 154 new leases and discharged 2 liens.

Data Collection - The section collects monthly oil production data and data on the disposal and injection of salt water for all active wells in the province. As of December 31, 2008, there were 3,434 non-abandoned wells in Manitoba. Digital production and injection histories are available for all wells.

During 2008/09, the section collected \$27.3 million from the petroleum industry. This revenue comprised \$10.5 million in Crown oil royalties, \$11.1 million in freehold oil taxes and \$5.7 million from administration of Crown Oil and Gas Rights, fees for well licences, battery operating permits, geophysical licences and oil and gas lease agent registration and publication sales. The revenue collected in 2007/08 was \$18.7 million.

Manitoba Drilling Incentive Program, (1992-2013) - The Manitoba Drilling Incentive Program provides licensees of wells drilled after January 1, 1992 and before January 1, 2014, a holiday oil volume of production that is exempt from Crown royalties or freehold production taxes. The holiday volume earned is a function of oil price and location of the new well with respect to other wells.

Holiday oil volumes of up to 20,000 cubic metres can be earned by a new well.

In the seventeenth year of this program, 326 wells earned an average holiday oil volume of 4,362 cubic metres, bringing the total number of wells with a holiday oil volume in the program to 2,059 as of December 2008.

Any horizontal well drilled prior to January 1, 2014 receives a holiday oil volume of 10,000 cubic metres. One hundred and twenty-seven horizontal wells were drilled in 2008.

Effective November 11, 1995, a marginal well where a workover is completed prior to January 1, 2014 earns a 500 cubic metre holiday oil volume. A marginal well is defined as a well that, over the previous 12 months, has been shut-in or has an average production rate of less than 3 cubic metres per operating day. Major workovers include the re-entry of abandoned wells, deepening or recompletion of existing wells from one pool to another and the repair of the casing in a well. Ten wells earned a holiday oil volume under the program in 2008.

The Manitoba Drilling Incentive Program provides for a portion of the oil produced from a new waterflood or other enhanced oil recovery (EOR) project implemented after April 1, 1999, which is attributed to an increase in reserves, to qualify as third tier oil for royalty/tax purposes. A portion of production from 9 approved EOR projects have qualified as third tier oil.

Newly drilled injection wells, or wells converted to injection within an approved EOR project, qualify for an "injection well incentive" and a one-year royalty/tax exemption. As of December 31, 2008, a total of 36 wells had qualified for an "injection well incentive" under the program. A total of 18 wells have completed the injection incentive period.

Performance Deposits and the Abandonment Fund Reserve Account - The section administers trust accounts for performance deposits and the Abandonment Fund Reserve Account. Applicants for licences or permits issued under The Oil and Gas Act are required to submit a performance deposit to ensure operations comply with the Act and regulations. These deposits are held in trust until required rehabilitation work has been completed. In 2008/09, approximately \$2.05 million in cash, term deposits and letters of credit were administered.

The Abandonment Fund Reserve Account is established under The Oil and Gas Act. Non-refundable levies on geophysical and well licenses, transfer of well licenses, battery operating permits and inactive wells are deposited in the account. The account is used as a source of funds to operate or abandon a well or facility that is in non-compliance with the Act, where the licensee of the well or facility fails to do so. The account can also be used to rehabilitate the site of an abandoned well or facility or to address any adverse effect on property caused by a well or facility. An expenditure from the account on behalf of a licensee automatically creates a debt of the licensee to the Crown, recoverable in court.

An annual report of activities relating to the account to March 31, 2009 is available on the Petroleum Branch website.

Abandonment Fund Reserve Account Activity

Opening Balance (April 1, 2008)	686,433.51
Deposits	217,642.95
Levies and Penalties	210,462.50
Interest	4,030.45
Penalty of Inactive Well Levy	3,150.00
Recovery of Expenditures	-
Expenditures and Refunds	290,920.86
Closing Balance (March 31, 2009)	613,155.60

Geology:

Geology prepares reports on Manitoba's petroleum geology and hydrocarbon potential to encourage and assist in the exploration and development of the provinces oil and gas resources. A system for the designation of field and pool boundaries is maintained. As of January 1, 2009 Manitoba had 14 designated oil fields and 188 designated active oil pools. A total of 395 new field and pool codes were assigned in 2008.

In addition, Geology provides consultation and assistance to the public and the petroleum industry.

Accomplishments in 2008/2009 include:

- Continued enhancement of the geological formations Tops database as part of the Manitoba Oil and Gas Well information system. In 2008, a total of 251 new wells were added to this database.
- Worked with Petroleum Digital Information Services to expand the Manitoba Oil and Gas Well Information System to incorporate rock properties, CO2 injection information and Las files.
- Began mapping surface lineations in Southwestern Manitoba. The aim of this project is to map surface lineations and relate them to subsurface faulting in the Manitoba oil fields.
- Worked with the Petroleum Engineering Section to update the regulations concerning CO2 injection and storage.
- Assigned Holiday Oil Volume to all new wells drilled.

Engineering and Inspection Section**Engineering:**

Under the authority of the Drilling and Production Regulation and the Geophysical Regulation, Engineering processes drilling licenses, geophysical licenses and applications to re-complete, suspend, or abandon wells. It also issues permits for all oil and gas facilities. In 2008/09, a total of 294 drilling licenses and 13 geophysical licenses were issued. In addition, 83 technical well operations applications were processed.

The Petroleum Branch has hired a third party consultant to study the technical and economic feasibility of CO2 enhanced oil recovery in some of Manitoba's waterflood pools. This project will review the availability of CO2 in the Westman area, the economics of developing a full scale flood and compare the financial regimes of other jurisdictions.

Information and advice are provided to the petroleum industry and the public at the Winnipeg, Virden and Waskada offices.

Inspection:

Inspection enforces regulations under The Oil and Gas Act related to geophysical, drilling, production, and pipeline operations. Specifically, the inspectors license and inspect field facilities, investigate complaints, witness specific operations, and interpret and communicate departmental or regulatory requirements to industry personnel. Inspectors are also responsible for carrying out safety and health inspections of petroleum industry operations under The Workplace Safety and Health Act. District offices are located in Virden and Waskada.

More than 1,900 wells and oil and gas facilities in the province were inspected at least once during the year. A total of 356 non-compliance orders were issued in 2008/09 for wells and oil and gas facilities not in compliance with the Act. A total of 347 flow line applications were processed and 132 excavation permits issued.

Inspectors visit all abandoned well sites to ensure that the abandonment and clean up have been conducted properly and that plant growth has been established. During 2008/09, 207 old abandoned sites were visited and 53 Certificates of Abandonment were issued, allowing for the release of wells from performance deposit requirements. The unit also manages a program of environmental protection involving the rehabilitation of all oil or salt water spill sites. During 2008/09, 47 new spills and 43 old spill sites were inspected. Twenty-five spill sites were fully rehabilitated and released from the branch's rehabilitation program.

Digital Information Services Section

Digital Information Services is responsible for development and maintenance of computer systems within the branch. These systems include a diverse collection of activities such as web services, database maintenance, GIS, distribution of data to brokers, application development and document images and mapping services.

In 2008/09, the section continued to expand the offering of information available on the internet. The section provided ongoing support and development for GIS map products, Petroleum website enhancements and the Manitoba Oil and Gas Well Information System (MOGWIS).

Accomplishments in 2008/09 include:

- Digital logs made available online for download;
- Technical well documents now updated monthly;
- Stratigraphic map additions to website;
- Crown rights, well and oilfield boundary shapefiles available for download from GIS map gallery;
- Continued support for the Oracle Petroleum Branch database and the Manitoba Oil and Gas Well Information System (MOGWIS);
- Ongoing support for GIS functions;
- Continued updating and enhancement of Petroleum data offerings.

Minister's and Director's Approvals

Under The Oil and Gas Act, the Minister and the Director of Petroleum have authority to issue orders relating to drilling, production, storage and transportation of oil and gas. The Minister has authority to make orders relating to well spacing, enhanced recovery, maximum production rates, seizure of wells and facilities and to enter into Unit Agreements on behalf of the Crown. The Lieutenant Governor in Council has delegated parts of this authority, under Order in Council 384/2001, to the Director where the circumstances are considered routine. The Director has authority to issue orders relating to salt water disposal, designation of field and pools, designation of new oil status and to affect the seizure of wells and facilities of a non-compliant operator pursuant to a Ministerial Seizure Order.

In 2008/09, no Ministerial Orders were issued.

In 2008/09, the Director of Petroleum made the following orders:

Salt Water Disposal Permit No. 197	September 30, 2008	Tundra Oil & Gas Partnership
Unit Agreement (Sinclair Unit No. 1 enlargement)	January 19, 2009	Tundra Oil & Gas Partnership
Salt Water Disposal Permit No. 198	March 23, 2009	Fairborne Energy

Petroleum Industry Overview :

	<u>2008</u>	<u>2007</u>
New wells drilled	316	324
Oil production	1,368,950.4 m ³ (8.62 million bbls)	1,277,066 m ³ (8.04 million bbls)
Value of oil sales (\$ million)	\$831.00	\$613.00
Average selling price	\$612.15/m ³ (\$97.27/bbl)	\$480.18/m ³ (\$76.30/bbl)
Wells producing - December	2,691	2,289
Estimated Industry Expenditures (\$ million)	\$320	\$361

More comprehensive information and historical statistics on Manitoba's petroleum industry are presented in the Oil Activity Review available from the Petroleum Branch.

18-5(c) Petroleum

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,240	21.50	1,301	(61)	
Total Other Expenditures	424		398	26	
Total Expenditures	1,664	21.50	1,699	(35)	

BOARDS AND COMMISSIONS

OBJECTIVES

To provide for the resolution of disputes between surface rights holders, mineral rights, and oil and gas rights holders with respect to accessing minerals, oil and gas.

Mining Board

The Mining Board is established under the Mines and Minerals Act. The primary function of the Board is the arbitration of disputes between surface rights holders and mineral rights holders with respect to accessing of minerals other than oil and gas. The Board can also hear and resolve disputes between holders of mineral dispositions and between holders and officers of the Department.

No Board Orders were issued in 2008.

Surface Rights Board

The Surface Rights Act establishes a quasi-judicial process for resolving land access and development disputes between oil and gas development proponents and surface rights holders. The Act also establishes a Board to arbitrate and mediate disputes and establishes appropriate compensation for petroleum development activities. Land Management provides administrative support to the process and the Board.

Highlights for 2008 include preparing and printing of the guide for land owners in both official languages, and initiating a legislative review process targeted at modernizing The Surface Rights Act. Other significant activities for the fiscal year include representing Manitoba at the Western Provinces Surface Rights Conference in Saskatoon and improving the administrative process and procedures for the Board activities.

	2005	2006	2007	2008
Signed Agreements for Surface Leases (fiscal year)	372	409	351	404
Total Number of Recorded Surface Leases	2650	3060	3411	3815
Review of Compensation Applications	0	1	0	0
Review of Compensation Applications	0	0	0	0
Termination of Board Orders	0	0	0	0
Application for Abandonment Orders	0	0	0	1
Board Orders Issued	0	0	0	0
Mediation Reports	0	1	0	0

18-5(d) Boards and Commissions

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries and Employee Benefits	7		30	(23)	1
Total Other Expenditures	7		16	(9)	1
Total Expenditures	14		46	(32)	

I. Decrease in board activities.

MINERAL INDUSTRY SUPPORT PROGRAMS

The Mineral Industry Support Programs are delivered under Manitoba Geological Survey.

Mineral Exploration Assistance Program

The Mineral Exploration Assistance Program (MEAP) provides financial assistance to eligible companies or individuals who undertake mineral exploration in Manitoba. Established in the fall of 1995, MEAP was renewed for an additional three years starting with the April 2008 offering and will provide \$2.5 million of assistance annually. The program was designed to increase exploration and stimulate activities that may lead to the development of new mines. Companies/individuals may qualify for 25% - 35% of eligible exploration expenditures up to a maximum of \$400,000.00 per recipient, per fiscal year; depending on the area of exploration. A higher percentage of assistance is offered for projects undertaken in the Northern Superior region of the province, due to remoteness and limited infrastructure. In response to difficult times brought on by the downturn in the mineral industry, MEAP has extended the higher percentage of assistance on eligible expenditures to include the Lynn Lake/Leaf Rapids and Snow Lake areas. Two offerings are held per fiscal year.

Companies with approved projects under the April 2008 offering had until October 31, 2008 to complete their work, and approved projects under the November, 2008 offering had until March 31, 2009 to complete their work. Forty-seven of the original 71 approved projects were completed.

Reviews, Audits and Inspections

To ensure accountability and integrity of the Program, the Department continued to conduct audits and site inspections following guidelines developed with the Provincial Internal Audit office. In the 2008/2009 fiscal year, Science, Technology, Energy & Mines and the Provincial Internal Audit Office decided to forego internal audits of the program for the year due to other priorities within Internal Audit and past history of administration of the program. Four site inspections for projects representing \$156,996.00 or 6.3% of the allocated assistance have been completed.

Program Highlights from October 1995 to March 31, 2009

- 161 companies have participated under MEAP of which:
 - 119 companies are considered new to Manitoba.
 - 16 are major exploration companies, and
 - 145 are junior companies (note: a company is considered a major exploration company if its market capitalization is greater than \$100 million).
- \$25.7 million of assistance has been issued to 690 completed projects.
- \$219.6 million in exploration expenses have been reported.
- Reported exploration expenditures under the Program indicate every \$1 million in assistance paid generates \$8.5 million in exploration expenditures.
- Every dollar of MEAP assistance the Manitoba Bureau of Statistics estimates that there are \$1.59 in Manitoba tax collections.

Mineral Exploration Assistance Program 2008 Status

<i>Offering</i>	<i>Applications Received</i>	<i>Approved Applications</i>	<i>Proposed Exploration \$ in 000's</i>	<i>Assistance \$ Allocated in 000's</i>	<i>Projects Completed</i>	<i>Actual Exploration \$ in 000's</i>	<i>Assistance \$ Paid</i>
08-04-01	40	40	33,838.1	1,100.0	25	16,783.6	695.0
08-11-03	32	31	26,043.6	1,400.0	22	17,930.5	989.9
TOTAL	72	71	59,881.7	2,500.0	47	34,714.1	1,684.9

Note: Projects approved under the November 2008 offering have until June 15, 2009 to file final reports and make application for final payment

Results of Assistance by General Region of Exploration for 2008/2009

	Projects	Exploration \$ in 000's	Assistance \$ in 000's
Far North	5 (7.0%)	\$ 632.6 (1.8%)	\$68.6 (4.1%)
Flin Flon/Snow Lake	28 (39.4%)	\$24,902.9 (71.7%)	\$806.6 (47.9%)
Hudson Bay Lowland	0 (0.0%)	\$ 0.0 (0.0%)	\$ 0.0 (0.0%)
Lynn Lake/Leaf Rapids	7 (9.9%)	\$ 2,988.6 (8.6%)	\$299.5 (17.8%)
Northern Superior	5 (7.0%)	\$ 1,970.3 (5.7%)	\$164.5 (9.8%)
SE Trans-Hudson Orogen	0 (0.0%)	\$ 0.0 (0.0%)	\$ 0.0 (0.0%)
Southeastern Manitoba	13 (18.3%)	\$ 1,241.0 (3.6%)	\$127.7 (7.6%)
South Central Manitoba	4 (5.6%)	\$ 787.3 (2.3%)	\$ 117.8 (7.0%)
Thompson Nickel Belt - Superior Boundary Zone	9 (12.7%)	\$ 2,191.5 (6.3%)	\$100.2 (5.9%)

Manitoba Potash Project

The Manitoba Potash Corporation (MPC) holds the development rights to known potash reserves in the Russell-Binscarth area of southwest Manitoba. MPC was created in 1986 as a joint venture between the province of Manitoba (49 per cent) and Canamax Resources Inc. (51 per cent). In 1990, Canamax sold its 51% interest in the potash project, to Potamine Potash Mining of Canada Inc. (Potamine), a subsidiary of Enterprise Miniere et Chimique (EMC) Group of France. In November 2006 BHP Billiton, one of the largest diversified mining companies in the world, purchased Potamine's share in the MPC and has committed to submit a \$15 million exploration plan to the provincial government within two years. A consultants report in 1986 concluded that at that time the Manitoba Potash Project had sufficient mineable reserves to sustain a world class potash mining and processing operation for over 25 years.

The Manitoba Potash Project has progressed to the scoping study stage of assessment by the project operator, BHP Billiton Minerals. The project is now undergoing a conceptual study that will review the preliminary economics of the project in advance of a feasibility study. The conceptual study reviews economics, geoscientific data, infrastructure requirements and conceptual mine plans.

Acid Rain Abatement Program - Flin Flon

This program provides financial assistance to Hudson Bay Mining and Smelting Co., Limited for the construction of environmental improvements to the metallurgical plant at Flin Flon. Modernization of the plant resulted in containment of sulphur dioxide emissions within prescribed limits.

The department continued to monitor the commitments by HBM&S and administered the ancillary loan agreement between Manitoba and Saskatchewan. HBM&S completed the repayment of loan obligations in June, 2008.

Manitoba Prospectors Assistance Program

The Manitoba Prospectors Assistance Program (MPAP) offers grants to prospectors conducting exploration on either their own Manitoba properties or open Crown land. The Program is targeted at increasing mineral exploration in Manitoba to help replenish declining ore reserves. The Program is funded at \$100,000 per year and allows individual prospectors to qualify for up to 50% of their prospecting expenditures incurred up to a maximum of \$7,500 per prospector per year. The program also provides 80% of the cost of one return charter flight or \$1,500.00 per year, whichever is less, for projects undertaken in more remote areas of the Province. The maximum assistance of \$9,000.00 is available per applicant, per year.

In 2008/09 the program received 5 applications for grants; 4 prospecting projects were approved under the program and 4 were completed. The total amount of Program funds dispersed for 2008/2009 was \$19,617.45.

Doug Berk	6,089.33
Garry Thorne	6,189.56
Ken Klyne (2 projects)	7,338.56
Total Funds Dispersed:	<u>\$19,617.45</u>

18-5(e) Mineral Industry Support Programs

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE \$	Variance Over (Under)	Expl. No.
Mineral Industry Support Programs				
- Mineral Exploration Assistance Program	1,707	2,500	(793)	
- Prospectors Assistance Program	17	123	(106)	
- Manitoba Potash Project	130	197	(67)	
- Acid Rain Abatement Program – Flin Flon	14	24	(10)	
Total Expenditures	1,868	2,844	(976)	1

1. Cancellation of exploration activities by industry applicants as a result of the economic downturn.

AMORTIZATION AND OTHER COSTS RELATED TO CAPITAL ASSETS

Commencing in 1999/2000, it is the policy of the Province of Manitoba to record in the accounts of the Province, the tangible capital assets owned and used by the Province along with appropriate amortization costs. The Provincial Comptroller has established standard asset classes, along with capitalization thresholds and corresponding amortization rates.

Consistent with this policy, the department records amortization of:

- the Enterprise System allocated to departments based on projected use;
- the Desktop Management Initiative costs allocated to the departments as a percentage of total units;
- the departments share of the total estimated costs of the Desktop Management Initiative and Enterprise System Management;
- the amortization of other departmental and government assets; and
- the interest related to the assets.

18-6 Amortization and Other Costs Related to Capital Assets

Expenditures by Sub-Appropriation	Actual 2008/09 \$	Estimate 2008/09 FTE \$	Variance Over (Under)	Expl. No.
(a) DESKTOP MANAGEMENT INITIATIVE				
Government-wide Desktop Costs	3,828	4,803	(975)	1
Less: Recoverable from other appropriations	(3,334)	(4,803)	1,469	1
(b) ENTERPRISE SYSTEM				
Amortization Expense	3,458	3,448	10	
Less: Recoverable from other appropriations	(3,458)	(3,448)	(10)	
(c) DESKTOP SERVICES				
- Amortization Expense -Transition	-	38	(38)	1
- Enterprise Software Licenses	93	93	-	
(d) Amortization Expense	3,996	7,961	(3,965)	1
(e) Interest Expense	2,879	3,980	(1,101)	1
Total Expenditures	7,462	12,072	(4,610)	

1. Change in capitalization policy.

SCIENCE, TECHNOLOGY, ENERGY AND MINES

Reconciliation Statement

EXPENDITURE DETAILS	
2008/09 MAIN ESTIMATES	81,060
MAIN ESTIMATES AUTHORITY TRANSFERRED FROM:	
Enabling Appropriations	
• Internal Reform, Workforce Adjustment and General Salary Increases	1,985
• eco-Trust	7,022
2008/09 ESTIMATE	90,067

Science, Technology, Energy and Mines

Expenditure Summary

For Fiscal Year Ended March 31, 2009 (with comparative figures for the previous year)

Estimate 2008/09 \$		Appropriation	Actual 2008/09 \$	Actual 2007/08 \$	Increase (Decrease) \$	Explanation Number
	18-1	Administration and Finance				
45	(a)	Minister's Salary	45	42	3	
	(b)	Executive Support				
469	(1)	Salaries and Employee Benefits	441	423	18	
73	(2)	Other Expenditures	49	70	(21)	
150	(c)	Administration and Finance	150	157	(7)	
737		Total 18-1	685	692	(7)	
	18-2	Energy, Climate Change and Green Strategy Initiatives				
	(a)	Energy Development Initiatives				
1,180	(1)	Salaries and Employee Benefits	1,027	1,151	(124)	
5,791	(2)	Other Expenditures	5,629	2,550	3,079	1
	(b)	Climate Change and Green Strategy Initiatives				
471	(1)	Salaries and Employee Benefits	503	446	57	
256	(2)	Other Expenditures	432	483	(51)	
14	(3)	Grant Assistance	14	14	-	
500	(4)	Hybrid Vehicle Rebate Program	1,258	988	270	
4,439	(c)	Green Manitoba Eco Solutions	5,189	1,993	3,196	2
12,651		Total 18-2	14,052	7,625	6,427	
	18-3	Science, Innovation and Business Development				
	(a)	Science, Innovation and Business Development				
1,570	(1)	Salaries and Employee Benefits	1,460	1,488	(28)	
677	(2)	Other Expenditures	629	744	(115)	
12,100	(3)	Manitoba Research and Innovation Fund	11,919	13,593	(1,674)	
720	(4)	Manitoba Centres of Excellence Fund	650	720	(70)	
(750)	(5)	Less: Recoverable from Urban Development Initiatives	(750)	(744)	(6)	
6,003	(b)	Manitoba Health Research Council	6,003	3,703	2,300	3
750	(c)	Industrial Technology Centre	750	750	-	
446	(d)	Manitoba Education, Research and Learning Information Networks	446	446	-	
21,516		Total 18-3	21,107	20,700	407	

Expenditure Summary

Estimate 2008/09 \$	Appropriation	Actual 2008/09 \$	Actual 2007/08 \$	Increase (Decrease) \$	Explanation Number
18-4	MB Information and Communication Technologies				
17,290	(a) ICT Services Manitoba				
60,066	(1) Salaries and Employee Benefits	16,597	15,666	931	
(49,533)	(2) Other Expenditures	61,208	59,975	1,233	
	(b) ICT Services Manitoba Recovery	(50,616)	(47,692)	(2,924)	4
954	(c) Legislative Building Information Systems				
211	(1) Salaries and Employee Benefits	886	800	86	
	(2) Other Expenditures	185	217	(32)	
1,259	(d) Service Transformation Manitoba				
918	(1) Salaries and Employee Benefits	1,320	1,184	136	
	(2) Other Expenditures	793	530	263	
31,165	Total 18-4	30,373	30,680	(307)	
18-5	Mineral Resources				
3,746	(a) Manitoba Geological Survey				
1,626	(1) Salaries and Employee Benefits	3,494	3,687	(193)	
	(2) Other Expenditures	1,691	1,620	71	
1,330	(b) Mines				
635	(1) Salaries and Employee Benefits	1,413	1,240	173	
	(2) Other Expenditures	663	589	74	
1,301	(c) Petroleum				
398	(1) Salaries and Employee Benefits	1,240	1,103	137	
	(2) Other Expenditures	424	364	60	
30	(d) Boards and Commissions				
16	(1) Salaries and Employee Benefits	7	9	(2)	
	(2) Other Expenditures	7	13	(6)	
	(e) Mineral Industry Support Programs				
2,500.0	(1) Mineral Exploration Assistance Program	1,707	2,071	(364)	
123	(2) Prospectors' Assistance Program	17	13	4	
197	(3) Manitoba Potash Project	130	210	(80)	
24	(4) Acid Rain Abatement Program-Flin Flon	14	25	(11)	
11,926	Total 18-5	10,807	10,944	(137)	

Expenditure Summary

Estimate 2008/09 \$	Appropriation	Actual 2008/09 \$	Actual 2007/08 \$	Increase (Decrease) \$	Explanation Number
18-6	Amortization and Other Costs Related to Capital Assets				
4,803	(a) Desktop Management Initiative				
	(1) Government-wide Desktop Costs	3,828	16,287	(12,459)	5
(4,803)	(2) Less: Recoverable from other appropriations	(3,334)	(5,227)	1,893	5
3,448	(b) Enterprise System				
	(1) Amortization	3,458	3,458	-	
(3,448)	(2) Less: Recoverable from other appropriations	(3,458)	(3,458)	-	
	(c) Desktop Services				
38	(1) Amortization Expense-Transition	-	40	(40)	5
93	(2) Enterprise Software Licenses	93	93	-	
7,961	(d) Amortization Expense	3,996	4,482	(486)	
3,980	(e) Interest Expense	2,879	4,258	(1,379)	5
12,072	Total 18-6	7,462	19,933	(12,471)	
90,067	TOTAL SCIENCE, TECHNOLOGY, ENERGY AND MINES	84,486	90,574	(6,088)	

Explanations:

- 1 Expenditures for the Coal Reduction Strategy
- 2 Expenditures for 08/09 Eco-trust projects, E-Waste and Household Hazardous Waste programs.
- 3 Increase in 08/09 funding to Manitoba Health Research Council.
- 4 Increase in salary and operating recoveries. Increase of desktop seat and all associated recoveries..
- 5 Change in capitalization policy

Science, Technology, Energy and Mines

Revenue Summary by Source

For Fiscal Year Ended March 31, 2009 (with comparative figures for the previous year)

Actual 2007/08 \$	Actual 2008/09 \$	Increase (Decrease) \$	Source	Actual 2008/09 \$	Estimate 2008/09 \$	Variance \$	Explanation Number
Current Operating Programs:							
Taxation							
10,162	10,832	670	Oil and Natural Gas Tax	10,832	13,828	(2,996)	1
10,162	10,832	670	Sub-Total	10,832	13,828	(2,996)	
Government of Canada							
53,819	-	(53,819)	Eco-Trust Fund	-	-	-	2
-	-	-	Community Access Program	-	-	-	
53,819	-	(53,819)	Sub-Total	-	-	-	
Other Revenue							
8,489	16,217	7,728	Petroleum Royalties and Fees	16,217	6,185	10,032	3
4,511	3,753	(758)	Minerals Royalties and Fees	3,753	3,201	552	
164	225	61	Sundry	225	504	(279)	4
13,164	20,195	7,031	Sub-Total	20,195	9,890	10,305	
77,145	31,027	(46,118)		31,027	23,718	7,309	

Explanations:

Comparison to Previous Year

- 2 *One time eco-Trust Funding received from the Government of Canada in 2007/08.*
- 3 *Revenue has increased due to an increase in production, price and Royalty values.*
- 4 *Revenue has increased due to an increase in Provincial Data Network revenue.*

Comparison Actual to Estimate

- 1 *Revenue was lower than budgeted primarily due to a decline in tax rate and pricing has dramatically fallen in the last 2 quarters of 2008/09.*
- 3 *Revenue was higher than forecasted due to an increase in production, price and Royalty values.*
- 4 *Revenue was lower than forecasted due to reduced Provincial Data Network expansion in schools.*

FIVE YEAR HISTORY

Science, Technology, Energy and Mines

Five-Year Expenditure and Staffing Summary by
Appropriation (\$000s)

For Five Years Ended March 31, 2009

Appropriation	Actual/*Adjusted Expenditures									
	2004-2005		2005-2006		2006-2007		2007-2008		2008-2009	
	FTE	\$	FTE	\$	FTE	\$	FTE	\$	FTE	\$
Administration and Finance	7.00	626	7.00	635	7.00	671	7.00	692	7.00	685
Energy, Climate Change and Green Strategy Initiatives	16.00	2,235	16.00	3,500	20.00	3,991	20.00	7,625	20.00	14,052
Science, Innovation and Business Development	22.00	17,744	22.00	18,220	20.00	18,947	19.00	20,700	19.00	21,107
Manitoba Information & Communication Technologies	90.12	33,491	90.12	27,192	218.72	28,149	222.72	30,680	222.72	30,373
Mineral Resources	107.60	10,092	102.60	11,038	102.60	10,644	102.60	10,944	102.60	10,807
Amortization and Other Costs Related to Capital Assets		8,134		9,179		7,362		19,932		7,462
TOTAL OPERATING	242.72	72,322	237.72	69,764	368.32	69,764	371.32	90,573	371.32	84,486
Expenditures Related to Capital Investment		6,684		17,124		9,368		8,735		8,099
TOTAL	242.72	79,006	237.72	86,888	368.32	79,132	372.32	99,308	372.32	92,585

* - Adjusted figures reflect historical data on a comparable basis in those appropriations affected by reorganizations during the five years

SCIENCE, TECHNOLOGY, ENERGY AND MINES

2008/09 Annual Report Performance Measurements

The following section provides information on key performance measures for the department for the 2008-09 reporting year. All Government of Manitoba departments include performance measures in their Annual Reports to complement the financial results and provide Manitobans with meaningful and useful information about government activities and their impact on the province and its citizens.

For more information on performance reporting and the Manitoba government, visit www.manitoba.ca/performance

Your comments on performance measures are valuable to us. You can send comments or questions to mbperformance@gov.mb.ca.

La section ci-dessous fournit de l'information sur certaines mesures clés de performance relativement aux activités du ministère pendant l'année 2008-2009. L'ensemble des ministères du gouvernement du Manitoba font état de mesures de performance dans leurs rapports annuels pour ajouter aux données sur les résultats financiers et mettre à la disposition des Manitobains et Manitobaines des renseignements valables et utiles sur les activités du gouvernement et leurs retombées pour la province et sa population.

Pour de plus amples informations quant aux rapports sur la performance et au gouvernement du Manitoba, veuillez consulter le site : www.gov.mb.ca/finance/performance.fr.html

Nous apprécions beaucoup vos commentaires sur les mesures de performance. N'hésitez pas à nous transmettre vos observations ou questions à l'adresse : mbperformance@gov.mb.ca

Priority: Drive implementation of the Green Strategy and maximize energy & climate change opportunities for Manitobans

(A) What is being measured and using what indicator?	(B) Why is it important to measure this?	(C) Where are we starting from?	(D) What is the 2008/2009 result or most recent available data?	(E) What is the trend over time?	(F) Comments/recent actions/report links
Developing alternative energy sources for Manitoba by measuring Wind Energy Production and the level of investment it is attracting in Manitoba.	Measuring alternative energy resources not only demonstrates the importance of diversifying the province's reliance on a single energy source, but it also recognizes the importance of developing clean, renewable and sustainable energy resources.	Wind production prior to 2005 was zero megawatts. As of 2005, St. Leon has the first Wind farm in Manitoba, which was built with a \$210 million private capital investment. ¹	2008/09, 99.9 MW of wind generation capacity was available at St. Leon with power being sold to Manitoba Hydro. Funding support has been provided for 7 wind monitoring towers since 2005 (2 in 2008/09)	Increasing. An additional 300 MW of wind is expected to be developed in St. Joseph as result of Manitoba Hydro's most recent wind RFP.	Approximately 7 additional sites will be monitored in the next 1 to 2 years to support the development of a Manitoba wind atlas. For more information, please see the press releases and reports below. MB Hydro progresses in evaluation of wind energy proposals. http://www.hydro.mb.ca/news/releases/news_08_03_31.html Province, Manitoba Hydro Unveil Expression of Interest To Develop 1,000 Megawatts of Wind Over the Next Decade – November 2005 http://www.gov.mb.ca/chc/press/top/2005/11/2005-11-21-01.html Southern Manitoba Farmers Set To Harvest Province's First Wind Crop – April 2005 http://www.gov.mb.ca/chc/press/top/2005/04/2005-04-28-04.html For more information about Wind Energy visit the Canadian Wind Energy Association website http://www.canwea.ca/ Province of Manitoba Climate Change Action Plan 2002 http://www.gov.mb.ca/est/climatechange/pdfs/final-mccap-sep-16-02.pdf

¹The St. Leon turbine is the first of 12 test wind turbines operational as of April 28, 2005, under the federal government's Canadian Renewable and Conservation Expense program which will be used to verify wind resources. Following a successful test phase, AirSource Power Fund will oversee the construction of a total of 63 wind-turbine generators, making up the 99-megawatt (MW) project covering two municipalities in southern Manitoba

Priority: Create major opportunities for community & economic development through 'New Economy' industries and technology

(A) What is being measured and using what indicator?	(B) Why is it important to measure this?	(C) Where are we starting from?	(D) What is the 2008/2009 result or most recent available data?	(E) What is the trend over time?	(F) Comments/recent actions/report links
We are measuring the ability to create opportunities for Manitobans in high tech industries by measuring the number of communities in Manitoba with broadband or high speed Internet access.	Access to Broadband is a cornerstone to economic development as it creates opportunities for Manitobans to compete in global markets, enhances education opportunities through e-learning and provides access to health care through tele-health ² .	Access to Broadband was limited in Manitoba and did not exist in rural and northern communities prior to September 2001.	In 2008/09 255 ³ of Manitoba's 473 communities have or are in the process of gaining access to broadband services. This is a 11% increase over the previous year.	The number of connected communities in Manitoba is expected to increase with the Manitoba Network. The expansion of broadband to connect public sector organizations can be used by private sector service providers to offer commercial services to un-served communities. Service Providers will be able to apply for Industry Canada funding to extend broadband to unserved communities in Manitoba.	For more information, please see the documents below. This measure was reported on page 46 of <i>Reporting to Manitobans on Performance 2005 Discussion Document</i> , which is available at http://www.gov.mb.ca/finance/pdf/performance.pdf Industry Canada Broadband Program: http://www.ic.gc.ca/eic/site/719.nsf/eng/home

² Access offers local businesses opportunities to participate in a wider area of commerce. Access and a community's web presence can be viewed as a tool for gaining e-commerce, enhancing economic development, and fostering growth in key areas. By reducing and even eliminating the economic costs traditionally associated with distance, broadband communications will offer all Manitoba communities the potential to capitalize on their natural and human assets.

³ With the establishment of the Manitoba Network Task Force, a validation of connected communities was conducted and determined the number of connected communities in previous years was over reported. The figure of 255 is based on confirmed connectivity data obtained from all Manitoba Internet Service Providers.

Priority: Significantly improve Manitoba's research capacity and the environment for our researchers

(A)	(B)	(C)	(D)	(E)	(F)
What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2008/2009 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
The capacity of Manitoba's research community, by measuring the amount of funding directed to research organizations in Manitoba by the Science Technology Energy and Mines.	Research and development capacity and its infrastructure is a key indicator as it is an indicator of Manitoba's competitiveness in retaining and attracting research investment and talented researchers and technologists.	The MRIF's predecessor, the Manitoba Innovation Fund (MIF) ⁴ was established in 1998 and provided total annual research funding of \$7 million. MRIF was established in 2003/04.	Total research funding by STEM in 2008/09 through the Manitoba Research and Innovation Fund (MRIF) was \$14.2 million (including \$900,000 for the Broadband Connectivity, Community Connections and Digital Media elements).	Funding to the Manitoba Research and Innovation Fund increased by approx. 1% in 2008/09 from 2007/08 levels. There has been a modest increase in overall funding over time. From 2003/04 thru 2008/09 the funding increased about 10%.	Manitoba Innovation Framework http://www.gov.mb.ca/est/innovation/index.html The Framework is a long-term strategic plan, initiated by the Manitoba Government in 2002.03, that supports knowledge based economic development through research, innovation and technology development. The document sets out a target of doubling Manitoba Government research investments to \$40 million annually by 2010. The MRIF also works with national funding organizations that provide matching funds to Manitoba. For more information, please view the websites below Canadian Foundation for Innovation (CFI) http://www.innovation.ca/index.cfm Genome Canada http://www.genomecanada.ca/ Canada and Canadian Institutes for Health Research (Regional Partnership Program.) http://www.cihr-irsc.gc.ca/

⁴ In 2003/04 the Manitoba Research and Innovations Fund (MRIF) was established with an allocation of \$12.95 million, as the main vehicle for provincial research and innovation funding.

Priority: Find the top opportunities to lever and expand Government's ICT assets as strategically as possible to benefit Manitobans

(A)	(B)	(C)	(D)	(E)	(F)
What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2008/2009 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
Manitoba's ability to maximize the use of our Information and Communication Technology (ICT) assets by measuring the number of Public Sector entities (i.e. schools, hospitals, and crown corporations) that use the Manitoba Network ⁶ as their primary network infrastructure.	Public sector entities that choose to become part of a larger user network will benefit from reduced costs, reliable service levels and consistent security provisions.	2005/06 marked our first attempt at measuring this indicator. At the time, 15 Education sites ⁷ and all 11 of the Manitoba Health Authorities were using the Manitoba Network under the current contract.	Approximately 24 Education sites (including 9 sites for University College of the North) and 128 sites in the Health sector (including 5 sites for Health Canada) use the Manitoba Network services. In addition, Manitoba Agriculture Services Corporation (MASC) has 26 sites. The total number of PSDN sites in use for government is 226.	The number of Manitoba Network connected sites changed only marginally over the last year as some sites were added and others dropped from the Network.	The Manitoba Network is a key initiative that will help meet government's commitment to ensure all communities in Manitoba have access to broadband or high-speed network services by 2010

⁶ The Manitoba government's Public Sector Data Network (PSDN) has been renamed the Manitoba Network. The PSDN represents a contract for the use/sharing of ICT capabilities with other public sector entities.

⁷ Education sites are defined as any educational facility, such as schools or post-secondary institutions, as well as administrative offices, such as school division offices, that support educational facilities.

Priority: Help expand the development of Minerals and Petroleum industries in Manitoba

(A)	(B)	(C)	(D)	(E)	(F)
What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2008/2009 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
Annual exploration expenditures by the minerals and petroleum exploration industries.	Annual exploration expenditures are the most direct indicator ⁸ of the level of mineral and petroleum exploration activity in the Province. One of the primary roles of the Mineral Resources Division is to promote exploration investment in Manitoba.	<p>2002 Mineral exploration (dollar value millions) of exploration in Manitoba (annual expenditure change): \$29.8 (up 3.8%)</p> <p>2002 Petroleum exploration and development capital expenditures (dollar value millions) in Manitoba and annual expenditure change: \$56.5 (0.38%).</p>	<p>Mineral exploration and deposit appraisal 2008: \$141.5; 2009 estimate: \$77.4</p> <p>Petroleum exploration and developments costs: 2008: \$255 million on total expenditures of \$509 million; 2009 estimate: \$210 million on total expenditures of \$390 million</p>	<p>Mineral exploration and deposit appraisal (dollar value millions) of exploration in Manitoba (annual expenditure change): 2002: \$29.8 (up 3.8%) 2003: \$27.2 (down 7.0%) 2004: \$36.0 (up 32.4%) 2005: \$52.9 (up 46.9%) 2006: \$52.9 (unchanged) 2007: \$102.6 (up 94.0%) 2008: \$141.5 (up 37.9%) preliminary estimate 2009: \$77.4 (down 45.3%) spending intentions</p> <p>All jurisdictions in Canada experienced a severe drop in exploration expenditures in 2009. Total industry spending intentions in Canada in 2009 are down 47% due to a significant drop in metal prices and the world economic slowdown.</p> <p>Petroleum exploration and development capital expenditures (dollar value millions) in Manitoba (annual expenditure change): 2002: \$56.5 (up 38.8%) 2003: \$51.8 (down 8.3%) 2004: \$64.5 (up 24.5%) 2005: \$126.9 (up 96.7%) 2006: \$223.2 (up 75.9%) 2007: \$196.7 (down 11.9%) 2008: \$255.0 (up 29.6%) 2009: \$210.0 (estimate)</p>	<p>Natural Resources Canada reports mineral exploration and deposit appraisal statistics for all provinces and territories at http://mmsd.mms.nrcan.gc.ca/stat-stat/expl-expl/sta-sta-eng.aspx</p> <p>High base metal prices which led to an increase in exploration in Manitoba over the past 3 years decreased sharply in the 3rd Qu/08 and with the exception of gold are expected to remain well below 2007-08 levels through 2009, Manitoba's share of Canadian mineral exploration increased from 2.8% in 2006 to 5.0% in 2008 and for 2009 is estimated to be 5.2%</p> <p>Canadian Association of Petroleum Producers (CAPP) captures and compiles oil industry WCSB exploration and development expenditures by province. The expenditures exclude oil sands projects.</p>

⁸ Mineral exploration expenditure statistics are public (compiled by Natural Resources Canada and Canadian Association of Petroleum Producers), unbiased, accurate, and available going back many years. They can be translated into jobs and tax revenue using information supplied by the Manitoba Bureau of Statistics. These numbers are a roll-up type indicator that reflects not only the impacts of government policy and programs, but also external factors. They are strongly influenced by commodity prices, projected worldwide supply and demand, and even weather (e.g., warm winters—and poor ice conditions—such as those in 2005-06 do not allow companies to conduct a full winter exploration program). Accordingly, such indicators cannot be viewed in isolation of worldwide trends or local developments. They are not influenced solely by government policy.

Priority: Help expand the development of Minerals and Petroleum industries in Manitoba - continued

(A)	(B)	(C)	(D)	(E)	(F)
What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2008/2009 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
				Continuing high oil prices, ongoing development of Sinclair oil field and the success of new horizontal well completion technology has resulted in an increase in exploration and development expenditures in 2008	The Department conducts an annual survey of total oil industry expenditures in Manitoba. Over the past 5 years, CAPP exploration and development expenditures have averaged 54% of total oil industry expenditures in Manitoba as estimated by the Department. Projections for 2008 are not available from CAPP.

The Public Interest Disclosure (Whistleblower Protection) Act

The Public Interest Disclosure (Whistleblower Protection) Act came into effect in April 2007. This law gives employees a clear process for disclosing concerns about significant and serious matters (wrongdoing) in the Manitoba public service, and strengthens protection from reprisal. The Act builds on protections already in place under other statutes, as well as collective bargaining rights, policies, practices and processes in the Manitoba public service.

Wrongdoing under the Act may be: contravention of federal or provincial legislation; an act or omission that endangers public safety, public health or the environment; gross mismanagement; or, knowingly directing or counselling a person to commit a wrongdoing. The Act is not intended to deal with routine operational or administrative matters.

A disclosure made by an employee in good faith, in accordance with the Act, and with a reasonable belief that wrongdoing has been or is about to be committed is considered to be a disclosure under the Act, whether or not the subject matter constitutes wrongdoing. All disclosures receive careful and thorough review to determine if action is required under the Act, and must be reported in a department's annual report in accordance with Section 18 of the Act.

The following is a summary of disclosures received by Manitoba Science, Technology, Energy and Mines, Green Manitoba Eco Solutions, Industrial Technology Centre, Manitoba Education, Research and Learning Information Networks for fiscal year 2008 – 2009:

Information Required Annually (per Section 18 of The Act)	Fiscal Year 2008 – 2009
The number of disclosures received, and the number acted on and not acted on. <i>Subsection 18(2)(a)</i>	NIL
The number of investigations commenced as a result of a disclosure. <i>Subsection 18(2)(b)</i>	NIL
In the case of an investigation that results in a finding of wrongdoing, a description of the wrongdoing and any recommendations or corrective actions taken in relation to the wrongdoing, or the reasons why no corrective action was taken. <i>Subsection 18(2)(c)</i>	NIL

PART B - CAPITAL INVESTMENT

Capital Investment is provided in the Estimates of Expenditures under Part B. For the year ended March 31, 2009, the department's capital authority provided for the acquisition, development and enhancement of government's information communication and technology. Support for internal reform initiatives involving the use of information technology in the delivery of government's services, including the Better Systems Initiative, are reported separately.

Part B - CAPITAL INVESTMENT

Expenditures by Sub-Appropriation	Actual 2008/09	Estimate 2008/09	Variance Over (Under)	Expl. No.
	\$	FTE \$		
B.6(a) – Desktop Managed Environment	444	2,400	(1,956)	
B.6(b) – Enterprise System	3,523	4,530	(1,007)	
B.6(c) – Other Information Technology Projects	124	625	(501)	
B.6(d) – Corporate Information Technology Projects	4,008	1,780	2,228	
Total Capital	8,099	9,335	(1,236)	1

1. Reduction in capital requirements due to a change in accounting policy, capital projects have been delayed until next fiscal year and others have been completed under budget.

APPENDIX A

ASSOCIATED AGENCIES, COMMISSIONS and COUNCILS

GREEN MANITOBA ECO SOLUTIONS

Green Manitoba Eco Solutions is a special operating agency of the Department of Science, Technology, Energy and Mines. The Department supports Green Manitoba Eco Solutions' objective to implement a proactive and integrated community-based model of program and service delivery focused on advancing Manitoba's strategic priorities in environmental protection and sustainable resource management. Green Manitoba tables its annual report under separate cover with the Manitoba Legislature.

INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Science, Technology, Energy and Mines. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS

The Manitoba Education, Research and Learning Information Networks (MERLIN), is a special operating agency of the Department of Science, Technology, Energy and Mines. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

MANITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

ECONOMIC INNOVATION TECHNOLOGY COUNCIL

The Economic Innovation and Technology Council (EITC) acts as a catalyst in establishing partnerships and alliances for increased economic development through innovation. EITC tables its annual report under separate cover with the Manitoba Legislature.

APPENDIX B

FINANCIAL INFORMATION

Science, Technology, Energy and Mines
Summary of Business Assistance
2008/2009 Fiscal Year

MANITOBA CENTRES OF EXCELLENCE FUND	649,915
MANITOBA RESEARCH AND INNOVATION FUND	11,919,094
LESS: RECOVERABLE FROM URBAN DEVELOPMENT	(750,000)
TRANSFER PAYMENTS	12,387,100
MINERAL INDUSTRY SUPPORT PROGRAMS:	
Mineral Exploration Assistance Program	1,706,614
Manitoba Prospectors' Assistance Program	<u>17,005</u>
	<u>\$25,929,728</u>

APPENDIX C

FINANCIAL INFORMATION

Science, Technology, Energy & Mines

List of Business Assistance

2008-2009 Fiscal Year

MANITOBA PROSPECTORS' ASSISTANCE PROGRAM

Doug Berg	\$6,089.33
Garry Thorne	6,189.56
Ken Klyne (2 projects)	4,726.06

\$ 17,004.95

MINERAL EXPLORATION ASSISTANCE PROGRAM

5411930 Manitoba Ltd.	42,103.00
Callinan Mines Limited	125,546.00
Copper Reef Mining Corporation	66,847.00
Crowflight Minerals Inc.	34,315.00
Cuprus Mining Corp.	27,936.00
De Beers Canada Inc.	30,907.00
Gossan Resources Limited	15,383.00
Halo Resources Ltd	89,565.00
Harvest Gold Corp.	28,633.56
Hudson Bay Exploration and Development Company Limited	191,112.00
Ken Klyne	23,448.00
Kria Resources	164,151.00
Lynn Lake Nickel Mining Company	92,052.00
Marathon PGM Corp	61,985.00
Murgor Resources Inc.	26,019.00
New Britannia Mine Ltd.	34,315.00
Peregrine Diamonds Ltd.	68,630.00
Puma Exploration	34,315.00
Rockcliff Resources Inc.	164,151.00
Rox Resources (Manitoba) Ltd.	12,220.00
Temex Resources Corp.	27,344.00
VMS Ventures Inc.	128,081.00
W.S. Ferreira Ltd.	75,822.00
Western Areas NL	31,050.00
Western Potash Corp.	64,918.00
Wildcat Exploration Ltd.	45,765.48

\$1,706,614.04

Priority: Drive and support service transformation in Government

(A)	(B)	(C)	(D)	(E)	(F)
What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2008/2009 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
The effectiveness of government's service transformation efforts toward citizen-centered service delivery, by using a service quality index devised for the Citizens First Surveys. These surveys are conducted independently by the Institute for Citizen-Centred Service and the Institute of Public Administration of Canada.	Public demand for improved service delivery continues to escalate year over year, which means that government must monitor its service improvement progress to ensure that it is meeting the needs of its citizens.	The Provincial Government's Service Quality Score has improved since Citizens First 1 was published in 1998. At that time, our Service Quality Score was 67. Our Service reputation Score was 47.	Citizens First 5 was released in the Fall of 2008. It shows that Manitoba's Service Reputation Score has a rating of 53/100, with an overall Service Quality Score of 71. ⁵	In the past our scores in Manitoba have shown continued improvement in the area of Service Reputation with Citizens First 2 (2000), where Manitoba's rating was 53, and Citizens First 3 (2003), where Manitoba's rating was 56. Most recently Manitoba's rating (2005) at 53 is slightly decreased. A steady improvement in Service Quality scores from a 67 in 1998 to a high of 75 in 2005 and a current rating of 71 for 2008.	Visit this site to review the outcomes of Citizen First 5 http://qwww.internal/stem/stm/process_framework_tools/mcs/references.html A potential issue with using Citizens First data is that it is unclear whether or not this measure will be available for the long term, which would require a change in this measure at a later date.

⁵ This Service Quality Score is an index based on how satisfied the public is with government services. Citizens First 4 describes five main facets of client satisfaction; they are: "knowledge," "fairness," "going the extra mile," "outcome" and "timeliness." When the public experiences these in high levels, service quality scores increase.

² Service Reputation reflects the overall view citizens have of the service quality provided. It is measured using a single item: "Overall, how would you rate the services of your government?" Many factors are taken into account when citizens answer this question which means it is a broad or global rating. Service reputation differs from service satisfactions which is a measure of how satisfied citizens or clients are with a specific service they have experienced.

